The Builder.

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ILLUSTRATIONS.

South Wales University College, Cardiff:—

1. Bird's-eye View
2. Elevations
3. Ground Plan
4. First Floor Plan

.....Mr. W. D. Caröe, F.R.I.B.A., Architect.

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The Royal Academy Exhibition.

THE exhibition of this year contains no single picture which can be pointed to as the great picture of the year, and none which can exactly be said to be a great picture in the full sense of the word, which should imply a painting of the highest class of execution embodying a great or important subject. This year the pictures on serious subjects are not of the highest class of execution, and those which are of the highest class of execution deal rather with idyllic than with epic subjects. Nevertheless, this is a good exhibition, and above the average, for it contains a larger proportion than usual of really good and interesting works, from among which could be picked a collection that would outshine any other in London.

Last year the greatest picture was a sea painting—Mr. Hemy's "Youth," and though there is nothing so exceptional as that remarkable picture, yet this may be called a sea-painting year in view of the three works of this class placed near each other in Gallery VI. Mr. Robert W. Allan's "The Pitiless Sea" (380) is the largest and most important sea picture he has yet painted, and gives very finely the grey and waste appearance of the sea on a dull wintry day. Mr. Somerscales, who has been replaced on the line, gives, in "The Coast of the Desert of Tarapacá" (387), an equally true but totally different aspect of the sea; that of the deep sea showing dark under a breeze and a clear sky; this is a wonderfully true picture, both in the drawing and colour of the sea; in the way in which we see its curve between us and the distant shore; in the drawing of the ship (in which Mr. Somerscales is always first-rate); and in the painting of the distant high coast-line. Mr. Hemy gives us, in "Haul Aft" (396), another episode of the yacht-race which we saw in "Youth"; the boat is before the wind now, and the youth in white flannel has left the helm and come forward to assist in booming out a big foresail; the sea-water hisses and splashes as only Mr. Hemy can make it. Had we not seen "Youth" we might have found this picture as exciting; but it is not quite equal to it, as second editions of the same thing seldom are. Mr. Hemy, however, has another great success of a different kind in his "London River" (236), a remarkable study of the dirty Thames with the sunlight on it, and a steamer towing a ship; comparing it with "Haul Aft," one can say that the painter has really made one feel the difference between clear deep sea-water and dirty river-water; the smell of the salt is with the one, the smell of sewage with the other; that the one painter should have succeeded so well in both effects is no small triumph of art.

It is an allegory year too; but unfortunately the allegories are not equal to the situation. Mr. Solomon's "An Allegory" (240) is indeed a fine painting, by far the best thing he has ever done—in fact there is a gulf between it and his former works in regard to style and colour; but it fails to do what an allegorical picture should do—explain itself. The nearly nude figure of Christ is borne across the centre of the picture by angels, the head of Moses with the tables being seen in shadow behind; on the ground in the foreground are reclining revellers; in the middle distance appears to be a shipwreck, but what is the point of it all is not clear. Still, it is a fine picture; in an artistic sense it is all in keeping, and the colour is rich and harmonious. The other two large allegorical paintings are clear enough in their meaning, but unfortunately belong to the blatant order of art. Mr. Sauber represents "Mammon" (540) as a gold-armoured horseman trampling over things; one hoof of the horse is on Cupid's wing—all this is excellent and quite obvious moralising, but the picture is loud and staring in colour. The best thing in it is the way in which the old form of jousting helmet worn by the horseman is made to convey, quite naturally, an expression of sneering indifference. Mr. Goetze, in his "Despised and Rejected of Men" (526), has played once more the rather easily-made sensation, first started by M. Béraud, of contrasting the figure of Christ with typical figures of every-day modern life. In this case the Christ is carved in stone only; some of the figures—the two young "Smart Set" people, the fatuous face of the jockey in the rear, the professional nurse and professional cleric—are carefully and cleverly studied, and the picture is a somewhat telling piece of satire; but it is not beautiful or decorative, and that is the first duty of a picture; to point a moral is only a secondary office of art.

How remarkably this is emphasised on turning to such a picture as Mr.

Furse's "Diana of the Uplands" (222), the picture which we should select were we offered the choice of one work out of this year's Academy. Here there is not only no allegory, but we may almost say no subject; only the figure of a *spirituelle* girl in a grey silk dress blowing in the wind, and holding in two greyhounds in a leash; but it is perfectly beautiful in the lines of the group, the expression of the girl, and the wild landscape and wind-blown clouds. This is true art, the making of the beautiful. Mr. Furse's other picture, "The Lilac Gown" (770), a study of a colour in the half-length of a lady with a sunshade, is equally artistic in type, though less attractive and with less inspiration than the other. But these are two real works of art, and in them Mr. Furse rises above the prevailing level of the new English Art Club, where he used to be chiefly known, and it is to be hoped that in future his works will be among the leading attractions of the Academy exhibitions.

Decorative art *par excellence* is supposed to be represented by Mr. Brangwyn's large and rather coarsely-executed painting, "Departure of Lancaster for the East Indies" (196), one of a series of decorative panels for the Skinners' Company. Decorative it is in the sense that the composition is flat and that every part of it is equally filled with detail; allegorical in a sense too, for we presume the figures are rather typical than real; but is it decorative in the finer sense of the word? We should hardly say so; the colour is harsh, and the large nearly black figure standing straight up in the middle of the canvas is rather irritating to the eye. The quality of being "decorative" depends surely on line and colour as much as on the choice of a conventional treatment. "Diana of the Uplands" is far more decorative than this; so is Mr. Solomon's "Allegory," the decorative quality of which is its greatest merit.

Among the other most important figure pictures the first room presents us with an allegory again, in Mr. Briton Riviere's "Youth" (17), the point of which seems to be the careless enjoyment of a young horseman on the edge of a gulf from which the frightened animal is backing. This is of course really an animal painting, and to achieve an animal painting and then give it an allegorical meaning is rather playing with the spectator, who feels that the allegory is only tacked on, as it were. Mr. Waterhouse's "Psyche opening the door into Cupid's Garden" (30) is another of those things in which a classical title does not disguise the very unclassical way of treating the subject; a cottage-girl Psyche is not a reading one can accept. The same lesson that we have already read, that great titles do not make great pictures, offers itself again in Mr. Waterhouse's other work "Boreas" (618), which though he has given a Greek name to the wind, is, like "Diana," simply an artistic composition of figure and landscape; a half-length of a girl blown about by the wind, but a real work of art, beautiful both in composition and colour. Mr. Stanhope Forbes's "A Rescue at Dawn" (61) is an effective picture of boatmen landing some people in a grey dawn, which contrasts with the lamplight in the shadow of the boat, but his most powerful work is further on in Gallery III.—"The Seine Boat" (167); not the river Seine, we presume, but a boat taking one end of a seine net; the figures and faces of the fishermen, in strong sunlight, are painted with great force, and the whole thing makes a picture, though rather of the realistic than of the artistic order. In the central place of Gallery II. Mr. Abbey's large picture, "A Measure" (114), must be a disappointment to those who remember some of the works by the same artist which have hung in the same place; it shows a staircase in a Renaissance palace, at the foot of which a lady is languidly dancing, with a sad expression on a face that impresses one as only half-finished. In the same room Sir E. Poynter's "The Nymph's Bathing Place" (141) is a beautifully drawn nude in a rather unsatisfactory landscape, but the figure itself is worth a good deal, apart from its surroundings. His larger painting in Gallery III., "Asterie" (246), a three-quarter length of a Roman girl who "looks from her lattice high" in spite of a Latin quotation which recommends her not to do so, is chiefly acceptable for the fine painting of the head and also of various accessories; otherwise not a very interesting picture. Nor is Sir L. Alma-Tadema's "The Ever-New Horizon" (252), three classic maidens looking from a marble-built terrace over the sea except in respect of colour; it has hardly the beautiful finish of his best work; but the delicate colour-harmony of the three draperies, with the bright yellow flower breaking against one of them, gives us one form of pleasure of the eye in the highest degree. In the same room is Mr. Draper's large and ambitious picture "The Golden Fleece" (199), the most important thing in scale and subject that he has yet produced, taking the moment when Medea cast her young brother into the sea that the duty of picking him up might delay her father's ship. The great golden fleece is piled in the middle of the ship; the figures are full of energy, and the mass of sail of the pursuing ship has a fine effect, but the shooting at it with a very small bow seems an absurdly inadequate attack, and the way the oars are shown, passed through holes in the thick bulwark in such a way that they could hardly be worked at all, is one of the instances we sometimes see of the unpracticality of painters. Another is shown in Mr. Wollen's well painted but absurd picture of the decisive moment at "Waterloo" (191), where, in order to bring Wellington into the middle of the picture, he is placed between the contending armies in a situation where no commander-chief could have any business to be if he valued his life; and one may be quite sure that Wellington had too much sense of his proper duty in the battle to have exposed himself in that way. That is a piece of clap-trap painted to catch the crowd; a painter of a battle picture ought to have known better.

Mr. Hatherell's large picture of the Guildhall banquet with the King and Queen as guests (267) is, we suppose, the kind of picture that is painted to order; such things are unavoidable, but they are rather documents than art; the thing is well done of its kind. In this room are some of those pictures which aim especially at effects of light to which everything else is sacrificed; in Mr. La Thangue's "From a Ligurian Spring" (297) the sunlight, where the shadow stops, is laid on in such thick flakes as to defeat its own end; and in Mr. Clausen's "Gleaners Coming Home" (258) we seem almost to lose the figures for the light; it is an effect, in short, rather than a picture; and seeing that it is essentially a foreground painting, surely a little more attention should have been given to texture; it is difficult to tell whether the load carried by the central figure is a large stone or (as seems to be intended) a full sack.

In the next gallery the central place is occupied by Miss Kemp-Welch's large and vigorous work, "Timber-hauling in the New Forest" (330), an extended forest scene, in the foreground of which a team of horses are straining up a bank. Miss Kemp-Welch went into another class of subject last year, which interested us; but on the whole she is wise in, to use a sporting phrase, "coming back to her horses"; they are her strong point, and with them she has at present no rival. Mr. John Collier's group of "Mrs. Kendal, Miss Ellen Terry, and Mr. Tree, in 'Merry Wives of Windsor'" (470) can hardly be classed as a mere portrait group; the painter has aimed at a Shakspeare scene, and it is a very able performance; the look of doubt and consternation on Falstaff's face is admirable, but his manner is incorrect according to the scene; he appears to be unwillingly pushed and cajoled towards the "buck-basket" (which appears on the right), whereas he was very anxious to hide in it—"Let me see it! Let me see it!" Possibly the picture may represent Mr. Tree's reading of the scene, but it is not Shakspeare's. Mr. Dendy Sadler's interior, "The Harvest Home" (476) is a good specimen of the realistic rendering of everyday life, which has its value no doubt, but of a rather secondary order; his picture of three gentlemen of the old school—"After Dinner Rest Awhile" (841) is a superior work both in humour and in artistic finish, and of its kind admirable. In Gallery X. we have another of the ceremonial pictures painted to order, and a formidably large one, "The Opening of the First Parliament of the Australian Commonwealth" (768), by Mr. Tom Roberts. This was a great historical event which might very well be celebrated in painting; it is difficult, no doubt to give artistic interest to such a subject, still there are men who could do it, though they do not seem to be generally selected. Perhaps, however, it is supposed to be one of the uses of this class of commission, that it gives employment to painters of whom we do not hear much otherwise.

We have not space this week to speak of portraits and landscape, but we shall have something to say on these in a further article, and also on some of the very interesting and in some cases very beautiful pictures which, though small and unobtrusive in scale, are as well worth appreciative notice as the larger and more important works which form the most prominent features of this year's exhibition.

THE HOUSE OF LORDS ON THE LAW OF LIGHT.

THE decision of the House of Lords on Monday last in the now celebrated case of the Home and Colonial Stores *v.* Colls, illustrates again the far-reaching effect of the judgments of the Higher Courts on the life of the community. The case above mentioned finally sets at rest a question which, as Lord Macnaughten said, has been elucidated or obscured by a mass of cases. The point at issue, as our readers will remember, was whether the plaintiffs were entitled to what may be called a reasonable amount of light, or whether they were entitled to the full amount enjoyed previous to the legal proceedings, even though the diminution of the amount did not render the premises substantially less useful as a place of business? The House of Lords has now decided that the claim for an extraordinary amount of light cannot be sustained. The decision does not go so far as deciding that it may not be claimed after an enjoyment of twenty years, though the general tenor of the judgment is against such a claim. It has always been difficult to reconcile it with the principle that in order to enable the owner of a dominant tenement to succeed in an action for infringement of light, he must show that his premises are substantially less useful, so as to interfere with the ordinary occupations of life. In the present case the judge of first instance found that "after the erection of the defendant's building the plaintiffs' premises would still be well and sufficiently lighted for all ordinary purposes of occupancy as a place of business." But the Court of Appeal held that this was not a finding sufficient for the plaintiffs' case, because it admitted that some light had been taken away, and that the plaintiffs' were entitled to all the light which had entered the windows during the past twenty years. The basis of this judgment of the Court of Appeal, said the Lord Chancellor, rested on a false analogy, "as though the access and enjoyment of light constituted a sort of proprietary right in the light itself," whereas the basis of the right of action is not a proprietorial right, but a right of the owner of the dominant tenement to enjoy the use of his premises in a reasonable way. We take it, therefore, that this enunciation of the law must demolish the right which in some cases it has been said that the owner of a dominant tenement has to the use of an extraordinary quantity of light for a special purpose after twenty years' enjoyment, because such right is really based on the proprietorial idea, and not on that of a right to a reasonable use of premises. If a man chooses to exercise some special calling he cannot ask for special rights above those of his neighbour; he is only entitled to be allowed to use his premises as a reasonable and ordinary occupier would do. But we need not go at length into this secondary point; the main part of our business is to note that the House of Lords has swept away the various conflicting decisions, and has placed this particular portion of the law of light in a clear and uncontrovertible position—a position which, whether we agree with it or not, is and must remain the law of England on this point—one of very great importance at the present time.

We give under our legal heading a report of the case, with the judgment pronounced by two of the learned judges, and we shall give in our next the words of the two other judges, so as to place the terms of this important decision fully on record in our pages.

We cannot conclude our remarks without a word of recognition of the public service which Messrs. Colls and Sons have done in persisting, at the risk of heavy loss to themselves, in contesting a case which, though small in scale, involved questions of such great importance to those concerned in building in London and in other crowded cities. They have been instrumental in procuring a judgment which will tend to remove in future a great many opportunities of what may be called legal injustice; and they merit the thanks of the community, as well as congratulations on their own account.

NOTES.

The Chapel of the Pyx.

THE lecture on Westminster Abbey given by the Dean of Westminster last week, at the Royal Institution, was rather of importance historically than architecturally; but we fully concur and sympathise with him in his remarks on the present unsatisfactory and anomalous condition of the ancient chapel of the Pyx, now divided by stone and brick walls into four small compartments, and removed from the custody of the authorities of the Abbey. The Dean's vision of a possible future for this portion of the Abbey, when we might see these four vaults united into one long chamber, with the old altar repaired, so that people might worship once more in the only portion of the Abbey which takes us back to the time of Edward the Confessor, is a vision which ought to be realised, and which we hope may be realised; for it is certain that in the present day, when people are not indifferent to the ancient history of ancient buildings, there would be an influential public feeling in favour of it.

Brickwork and Stone Facing.

WE have received a request to name some application which would protect stone facing from the effect of the acid in the brick backing on the stone. There is perhaps some misunderstanding as to the real nature of the difficulty in such a case. As a rule the exudations from brickwork are alkaline, not acid. These alkaline salts (chlorides and sulphates of soda, lime, and magnesia), are hygroscopic, and, therefore, keep the brickwork perpetually damp unless it is exposed to rains, which dissolve the salts and wash them away. If the brickwork is faced with limestone before these alkaline salts have been removed, the salts would probably find their way to the stone and cause exfoliation. If the exudations are really acid, the best treatment would probably be to apply limewash. The lime would neutralise the acid; but we have never heard of such a case. Any treatment (such as steeping the stone in silicate of soda) which would protect the stone from atmospheric acids would also protect it from acid exudations from brickwork. But if it is really protection from alkaline hygroscopic salts that is required, in that case no treatment save that of allowing the brickwork to become seasoned before placing the stone in position would be entirely satisfactory.

Effect of Heat on Cast Iron and Steel.

EVIDENCE of the necessity for precise knowledge as to the behaviour of metals under the influence of high temperatures is afforded by some circumstances observed during the inspection of a sixteen-story building at Baltimore. It appears that although the entire contents of this structure were consumed in the recent fire, the steel framework suffered no perceptible distortion or injury. On the other hand, the cast iron door and window frames, which were set in granite, expanded to a very considerable extent, this expansion being permanent and very noticeable. The effect naturally was to cause serious distortion of the framework, which was particularly marked in the case of iron mullions of the high office windows. Many of these were bent several inches from a straight line, and in some cases the bends would be better described as "buckles." None of those who have hitherto directed attention in the technical press to the bending and buckling of cast iron during this fire appear to be aware of the fact that the metal has permanently increased in volume under the influence of heat. Permanent growth of this kind not only destroys the usefulness of cast iron after it has been subjected to high temperature, but also constitutes a source of danger by affording means of ingress for flames as soon as the metal becomes distorted. These points should be remembered by architects and constructional engineers, by whom it may be hoped that so unsuitable a material as cast iron will not in future be employed for the frames of either doors or windows in buildings which are intended to be of fire-resisting construction.

Power Station Design.

THE paper on "Power Station Design," by Messrs. Merz and McLellan, which was read to the Institution of Electrical Engineers last week, treats of a subject of great commercial importance at the present time. Power stations for supplying electricity for power, traction, and lighting over considerable areas are now working in various parts of the country, and many more will shortly begin working. What impressed us most in this paper was the apparent simplicity of the whole problem. Three-phase transmission was taken for granted. The boilers have to be placed as near as possible to the engines, so that the steam pipes are as short as possible. Each boiler, engine, and dynamo forms a complete unit, so that a machine can be shut down for inspection or repair with no trouble, and the risks of a breakdown are reduced to a minimum. The switchboard is made as simple as possible, care being taken to avoid crossing any

cables, and the switches on the high-pressure circuits being operated electrically by motors worked by low-tension currents, so as to minimise the risks to the attendants. The authors were of opinion that steam turbines were the most suitable engines for driving alternators, and they quoted figures showing the economies effected by their use at the Newcastle Power Station. In one case a 3,000 horse-power turbine ran for 7,500 hours without ever having been opened up. The difficulty of obtaining intelligent labourers was mentioned, yet the authors were of opinion that labour-saving apparatus like mechanical stokers, coal-handling plant, etc., was not economical. In a case quoted the capital and repair charges exceeded by 200 per cent. the economy in wages effected, showing that the expenditure on the labour-saving appliances was far from being justified. Mr. Addenbrooke in the subsequent discussion stated that an average power station required nearly a million gallons of water per hour for condensing purposes, and so a plentiful supply of water was a necessity for such a station. It seems to us that large power stations are more suited to this country, with its comparatively speaking dense population, than small, isolated central stations. The cheap supply of power for factories and for electric traction must have important consequences industrially and socially in the immediate future.

The Electrolysis of Water and Gas Mains.

THE question of the electrolysis of gas and water mains caused by the leakage of electric currents from the tramway-rail was recently discussed by Mr. A. B. Herrick in the *Street Railway Journal* of New York. He points out that the difference of electric pressure between the power station and the farthest point of the rails in a tramway system is not a measure of the amount of the leakage currents. These vary with the conductivity of the soil in the neighbourhood of the rails. In some places a very minute difference of electric pressure will give rise to enormous currents. In other places the difference may be large without producing any appreciable current. In the Board of Trade Rules in this country it is specified that this difference must not exceed seven volts. It seems to us that this regulation might easily be made more scientific. Mr. Herrick mentions that the pitting which is often observed on the surface of a water pipe is not necessarily caused by electrolytic action due to leakage currents. If free particles of carbon have been left in the steel after it has been rolled it is easy to understand how this pitting takes place. The action would be a purely local one, the particle of carbon forming one pole, the surrounding steel the other, and the moist earth forming the electrolyte. The pits formed would be filled with a graphitic substance which could be scraped out with a knife. Pipes pitted in this way have been found in towns which have no electric supply for either lighting or traction. The pitting due to electrolysis is practically indistinguishable from the effects of local action, but it must, however, be a far more frequent cause of the deterioration of steel pipes. Mr. Herrick says that the developed fibrous structure of the metal may possibly also in some cases be due to other causes. In lead pipes the surest indications of electrolysis are the veinings of carbonate of lead found in the surrounding soil in the direction of the leakage currents. The author suggests a simple method of testing for electrolytic action. Two similar sheaths concentric with the pipe and made of the same metal are placed round it. One of them is connected to the pipe by a piece of metal. They are carefully weighed before being put in the earth and are weighed again some months afterwards. The difference in weight will indicate whether electrolytic action has been taking place or not. The methods Mr. Herrick gives of protecting pipe-work systems are deserving of careful study.

Birmingham Theatre Rules.

THE new theatre regulations of the City of Birmingham are of an eminently practical character. Rule 10 states that scenery and draperies on the stage shall be fire-resisting, and Rule 22 requires that sprinklers must be provided for the stage and other parts of the building where the risk of fire is great. If these two rules are duly enforced, a great deal will have been done to prevent a fire having fatal results in Birmingham; but we, of course, fully appreciate that there must be a considerable difficulty in thoroughly enforcing these rules in a town which is frequently visited by touring companies whose scenery is too often of the frayed and highly-inflammable description that is anything but fire-resisting. Due notice should be given to all touring companies that only flame-proof scenery can be used within the Birmingham area, and the sooner this is notified to the various managements concerned the less friction there will be. The regulations for the Birmingham theatres show a far greater grasp of the question of theatre safety than is, as a rule, found in provincial centres, and the local authorities, with their advisors, are to be congratulated upon them.

Kensington Gardens.

A FEW years ago we directed attention to the spoliation of one of the most pleasant footpaths beneath the trees across the gardens by its conversion into a straight gravelled walk, from Marlborough-gate towards Queen's-gate, in the Gore. We observe that yet another and equally charming footpath is being cut up, and that the turf is removed preparatory, it seems, to its treatment in the same formal fashion. In that case we shall be deprived of the pathway across the grass between Bayswater-hill and the gate at the south-east corner of the gardens. The path is not much frequented, and its agreeableness is enhanced by the circumstance that it is shaded by trees on only one side; the western side is mainly open ground, and thus affords a pleasing view of the lawns and avenues of the gardens in the afternoon of a bright summer's day.

The Old Coaching-Inns in Holborn.

A FIRM of outfitters are about to extend their premises, recently erected, from Mr. Joseph Sawyer's designs, at the corner (east) of Leather-lane, by taking in some adjoining houses in Holborn. One house, No. 122, marked by its large and finely-modelled sign of a black bull, has been, with its former next-door neighbour, the Old Bell, a famous house of call for mail and stage coaches in its day; and until twenty years ago the coach to Amersham and Wendover ran from the Old Bell. The galleried yard of the Black Bull was taken some years since for the erection of working-class dwellings. The front of the adjoining inn, No. 123, was rebuilt in 1720; the "galleries" and "boxes" around the yard were much older, and remained until the demolition of the premises in February, 1900, for a railway receiving-office and a restaurant. The authenticated history of the Old Bell, formerly the Bell, or Blue Bell, begins, it seems, with a record of its sale for 40*l.* by William Barde to Richard Hunt by a conveyance dated March 14, 1538; in May, 1722, it was sold by Joseph Gregge for 2,114*l.* to Christ Hospital, of which the almoners are the present ground landlords. The coat-of-arms on the front were preserved for the Guildhall Museum, and have been identified as those, quarterly, of Gregge of Bradley, Cheshire, and Starkye of Stretton, with the Gregge crest, and not, as is commonly stated, of the Fowlers, lords of Barnsbury Manor, Islington, *temp.* Elizabeth. In 1899 were pulled down Ridler's Hotel, a comfortable resort of old-fashioned folk; the two quaint old houses, Nos. 129-131, having bayed fronts; and the Horse and Groom in Leather-lane at the rear, for Mr. A. Waterhouse's enlargement of the Prudential Assurance Company's offices (see our illustration of September 2, 1899). The Black Bull, established in the middle of the XVIIth century, was the headquarters of the coaches that ran to Cambridge and the Eastern counties. With it disappears the last of the coaching-inns in that part of the main road, and another, the Saracen's Head, in Snow-hill, recently rebuilt, is just placed in the market.

The Lefèvre Galleries.

MESSRS. LEFÈVRE AND SONS have a small collection of pictures on view at their gallery in King-street, St. James's, including Rosa Bonheur's celebrated picture of "The Duel," representing a historical fight between two horses. There are also some studies of dogs by the same great artist, which are among the last things she did, and a fine black and white study of the head of a lioness. Among the other pictures is a particularly fine example of Cotman, "Off the Norfolk Coast," unusual as being a study of rough sea, as Cotman's sea-pieces were more generally representations of calm sea. Gallait's old picture, painted many years ago, of the bodies of Counts Egmont and Hoorne lying in state, it is interesting to see again, though it will hardly take the position now that it did when first painted.

A Sane Criticism on Whistler.

IN his speech at the Royal Academy dinner, the President of the Academy made some remarks on Whistler and his place in art which may be commended to the

attention of the *quidnunc* school of art-critics who have exalted Whistler into a kind of faultless idol among artists. Doing full justice to the originality of Whistler's genius, as shown in "a natural grace and the most exquisite and ethereal scheme of colour that has ever been put upon canvas," Sir E. Poynter remarked that :—

"The brilliant resources of his wit supplied him with admirable reasons for carrying his work no further than inclination prompted. His followers and imitators quickly seized the situation, and gladly hailed an authority which seemed to give them a dispensation from the irksome necessity of learning their craft to completion; and the art of leaving off when the difficulties begin is, I am afraid, the heritage of this gifted artist."

That is just about the truth of it in a nutshell; and the judgment comes with the more weight in that it comes from the finest and most learned and painstaking draughtsman of his day, and the President of an institution which, whatever its shortcomings or mistakes, has the merit of having consistently upheld a high and sound standard of execution in art, which is perhaps the most manifest and practical duty of an academy of art. An academy cannot create genius, but it can maintain a standard of executive training, and it is the great merit of the Royal Academy that it has at least consistently kept that object in view.

LETTER FROM PARIS.

M. CHEDANNE, the architect to the Ministry of Foreign Affairs, is to commence shortly the erection of the new Hôtel of the French Embassy at Vienna. The interior decoration of the building is to consist of a series of tapestries from the Gobelins manufactory, for which cartoons have been commissioned from M. Hannotin, the painter, who designed the two tapestries now in course of execution for the Elysée Palace and the Cour de Cassation. The tapestries for the Embassy at Vienna are to represent the châteaux in the neighbourhood of Paris in the XIXth century, and will thus form a kind of pendant to the celebrated series of Châteaux de France, carried out at the Gobelins in the XVIIth century, from the designs of Le Brun.

The excavations which have been carried on for some months in the neighbourhood of the Collège de France have enabled the "Vieux Paris" Committee to determine a considerable part of the plan of a Roman monument of considerable interest. It is hoped that the further prosecution of the work will lead to some important discoveries in regard to the history of old Paris.

There is to be exhibited shortly at the Louvre, in one of the galleries underneath the new Rubens Gallery, an Egyptian sepulchral chamber or Mastaba, dating from the Fifth Dynasty, which was discovered last year on the plain of Ghizeh, by M. Georges Bénedite, the curator of Egyptian antiquities of the Louvre. This monument, which is 4.72 mètres long, 1.82 mètres wide, and 5 mètres in height, forms a quadrangular chapel of pyramidal section, decorated with bas-reliefs representing funeral ceremonies, as well as scenes and incidents in the daily life of ancient Egypt.

The collection of ancient and modern pictures belonging to the well-known publisher of Tours, M. Mame, has been sold at the Georges Petit Gallery; and, strange to say, it was the modern works which brought the highest prices. The "Mère de Calvin" by Holbein went for 30,000 francs; a portrait by Mantegna for 34,000; but a landscape by Corot, and not one of his best, went for 103,000 francs; a sale which was regarded as rather sensational. At the same gallery Mdlle. Breslau has arranged an exhibition of pictures and pastels of considerable interest and originality of style; among them a fine portrait of the sculptor Carriès, which will probably find place in the municipal collection at the Petit Palais.

A curious exhibition of photographs, organised by the "Photo-club de Paris," has been opened at the Petit Palais, which contains examples of work which may almost be said to rank as art-work. The Paris municipal authorities have taken great interest in this exhibition of photographs which are records of Paris topography, regarding this as a kind of complement to the Carnavalet Museum; and it is intended to have another photographic exhibition in December (also at the Petit Palais), consisting of views of the Bièvre within Paris, the district of old Montmartre, and views of some private gardens of special interest which have hitherto escaped being swept away in the march of improvement; though such gardens are becoming more and more rare in Paris.

Among other exhibitions that of the works of the painter Romain Cazes, just opened at the Ecole des Beaux-Arts, is worth mention. It consists of portraits and paintings of religious subjects, rather hard in style but with very fine qualities of drawing and composition, such as might have been expected from one who was the favourite pupil of Ingres.

Two new losses have to be recorded in the ranks of the Société Centrale des Architectes. M. Henry le Clerc, who has died at the age of sixty-five, was a pupil of Hippolyte Le Bas and of Ginain, and collaborated with the latter architect in the erection of the church of Nôtre Dame des Champs and in that of the Ecole Pratique de Médecine. He carried out numerous buildings—chateaux, schools, and one or two important churches. We have to record also the death, at the age of fifty-two, of M. Ernest Duquesne, a former pupil of Questel.

THE INSTITUTE OF SANITARY ENGINEERS:

COMBINED DRAINAGE.

A MEETING of the Institute of Sanitary Engineers, Limited, was held on the 13th ult. at No. 19, Bloomsbury-square, W.C., when Mr. A. A. H. Scott opened a discussion on "Combined Drainage." In the course of his remarks he said he could not understand how it was that for all these years it had been left to the legal profession to decide points as to combined drainage, whereas it was purely a technical matter, which could and ought to be settled by a professional arbitrator. The point that seemed to be most before the Courts was the definition of certain items used in the Public Health Act, 1875, such as definition of "drain," "sewer," "owner"; and arising out of the definition of "drain" came the question as to what was the "same curtilage," and who was the "owner," and again, there were various points under the Public Health Acts Amendment Act, 1890 (53 & 54 Vict. c. 59). In the 1875 Act, the definition of "drain" was, viz.: "Drain" means "any drain of and used for the drainage of one building only, or premises within the same curtilage, and made merely for the purpose of communicating therefrom with a cesspool or other like receptacle for drainage, or with a sewer into which the drainage of two or more buildings or premises occupied by different persons is conveyed," and the definition of "sewer" in the Public Health Act, 1875, was, "sewer" includes "sewers" and "drains" of every description, except "drains" to which the word "drain" interpreted as aforesaid applied, and except drains vested in or under the control of any authority having the management of roads and not being a local authority under this Act. One point he should like to raise was: What are "drains"? Do we include the soil and lead pipes, etc., within the house? Generally speaking, only horizontal pipes, and even then not the small leaden ones, can be drains. Of course, if an Act expressly defined drains as including sink-conductors, etc., then of course they were included, as in the Glasgow Police Act. From the case of Holland *v.* Lazarus we were forced to include gutter down pipes as drains, and the fact that they were not within the sanitary part of the Act would not exclude them (see Sykes *v.* Sowerby, 1901). And yet in section 25, part III. of the Public Health Act, one could not build a house until the drains had been constructed; now, as a down pipe was a drain, it was somewhat awkward to comply with section 25. He mentioned this only to show that the Act was open to peculiar construction. Then as to "same curtilage," this term had been defined by the Courts in most extraordinary ways (that was, from an architect and sanitary engineer's point of view; probably it was very clear to the legal mind.) Mr. Barker, barrister, of Newcastle-on-Tyne, had dealt with this matter in a lecture published in the R.I.B.A. Journal, from which we find that there are four considerations to be taken into account in deciding whether premises are one or more than one: (1) An actual ring fence round the premises, or in other words the fact that the premises are not divided by roads or property belonging to others, or used by the public. This is an element of union, but will not necessarily unite two buildings. (2) Private communication between parts of the premises—that is to say, the possibility of going from one to the other without touching roads or property belonging to others or used by the public. Private communication is, of course, a very powerful uniting factor. (3) The necessity of one part of the premises to the other or others, which causes the law to overlook and ignore the division between. (4) The fact that the occupier of one part of the premises is the occupier of the other has a uniting effect. A letting out of part of the premises has sometimes a severing effect. According to the recent appeal case of Wilkinson *v.* Llandaff Rural District Council, it was decided that an open channel across the pavement, over which the rain-water discharged from the house, was decided to be a "sewer." There was another point to bring forward, *i.e.*, the repair of combined drains. He believed that some of his hearers had started to repair under notice from the Council, and after they had commenced to execute the work, they found it was a "sewer" and not a "drain," and the question arose then, who was to pay for the work already done? Now, in Florence *v.* The Paddington Vestry (December, 1895), the owner succeeded in making good his claim. It appeared from later cases that the whole question rested entirely upon the notice from the Council. In Klett *v.* Camberwell Vestry (August, 1896), it was decided that as the notice was only a mere intimation by their officer, the plaintiff could not recover. In the case of Andrew *v.* St. Olave's Board of Works (July, 1898), the Queen's Bench Divisional Court decided that the notice, which was issued in accordance with section 4 of the Public Health (London) Act, 1891, was more than a request or intimation, as it required the plaintiff to do the work within fourteen days, under a penalty of 10*l.*, and he had, therefore, acted under stress of compulsion in repairing a "sewer." And again, in North and Millhouse *v.* Walthamstow Urban District Council (November, 1898), the case was decided for the plaintiff on similar grounds, the notice there requiring the work to be done within seven days. Mr. Justice Channell said, "The question is, what degree of compulsion is necessary to entitle the plaintiff to recover? The compulsion need not be irresistible. If a public body comes to a person, and either commences or threatens proceedings, such person is no longer a volunteer. There was no legal compulsion, but a mere indirect compulsion is sufficient." In Proctor *v.* Mayor of Islington, the sanitary inspector gave a notice that the drains were in a defective condition, and it was decided by Mr. Justice Wright that the plaintiff had not done the work under compulsion, and therefore could not recover. At Buxton they were trying to treat this matter of combined drainage in a satisfactory manner, and they had (when the Institute held their annual summer meeting there) a Bill in Parliament, giving certain powers to the council which they hoped would clear many difficulties. It was a pity that the Government did not take some decided steps to put the matter on a satisfactory footing. Last June there was a deputation to Mr. Long over this matter, and he said he would give the matter his careful consideration, but nothing that we know of had been done yet.

Mr. Scott then took the case of a row of six cottages, which it was proposed to drain by combined drainage with one connexion to the sewer. By doing this, he said, you are only raising different points for the future generations. If (as in many cases it does happen) in a few years it is decided to make these cottages into shops, it may be found desirable to put an extension at the back, probably with a basement; in that case one could see what a difficulty they would have in dealing with the drain, which would probably drain five houses, and they would have either to spend a lot of money diverting the drain, or else to forego the basement and extension. Now with regard to the cost, to drain six houses on the combined system would cost about 25*l.* each, whereas if they drained each house separately

it would cost 33*l.* each. This little extra cost of 8*l.* equalled at 7 per cent. only an additional amount of 12s. per year in the rent, or about only 1¼d. per week additional rent per house. He suggested that in future all combined drainage (which he considered undesirable in every way) should be an unknown factor in new buildings, and each house have its own connexion to the sewer, etc.

In the discussion which followed Mr. J. T. Griffin (Chairman of Council), H. M. Dove, E. R. Palmer, R. Wright, R. Horton, G. W. Chilvers, and F. Britton took part, and a vote of thanks was accorded to Mr. Scott for his remarks.

ART UNION OF LONDON.

A GENERAL meeting of members of the Art Union of London was held on Thursday last week, by permission of the Council of the Society of Arts, at the Lecture-room, 18, John-street, Adelphi, when the report of the Council was received and the prizes of works of art distributed. In the unavoidable absence of Lord Windsor, the chair was taken by Mr. R. Biddulph Martin, M.P.

The sixty-eighth annual report of the Council, read by Mr. F. Marriott (Secretary), referred first to the loss the Society had sustained by the death of Sir Charles Nicholson, Bart., and Mr. T. O. Donaldson, M.Inst.C.E. The vacancies had been filled by the election of Mr. Archibald Donaldson and Mr. A. H. Brice. After appropriating a sum of 1,134*l.* to the expenses of the annual engraving and other works of art presented to subscribers, the Council had been enabled to set aside a sum of 378*l.* for prizes to be drawn for that day—making, with the consolation prizes awarded during the year, a total of 196 prizes. Among the works selected by the Council, and given as prizes that day, were a number of pieces of Doulton pottery, which had been specially prepared with a view to exhibition at St. Louis, but which, in response to a request from the Council, had been very kindly reserved for the Society. They were unusually fine specimens of the potter's art, and would do credit to one of the most important of British art industries wherever they might go. The portfolios of Brandard etchings formed another interesting feature of the prize list. A selection had been made from a number of plates purchased by the Society from the widow of the late Robert Brandard, and the statuette "Hero," of which a copy in bronze formed one of the principal prizes at the distribution, was selected by the late Lord Leighton from among a large number of competing designs for the premium of 150*l.* offered by the Society. It was a universally admired figure, and had been several times in requisition for exhibition purposes as a representative work of British women sculptors. The First Lord of the Admiralty having publicly expressed the hope that gifts of paintings and engravings of naval subjects might be made to the new Royal colleges at Osborne and Dartmouth, the Council had presented to each of these institutions a complete framed set of the naval engravings which had been issued by the Society, viz., "The Death of Nelson," "The Attack of the Vanguard," "The Loss of the 'Revenge,'" "The Escape of the 'Calliope,'" and "Victoria Victrix."

As the subject for the coming year's presentation etching, the Council had chosen the picture by Mr. Alfred East, A.R.A., entitled "The Miller's Meadow," which was exhibited in the New Gallery Exhibition of last year. The picture was selected by the Royal Commission as a representative British painting for the forthcoming exhibition at St. Louis. Unfortunately, the necessity for the canvas being in the engraver's hands until the present moment prevented its being sent to America. Mr. C. O. Murray had been wonderfully successful in his etching. In writing to the Secretary, Mr. East says:—"I consider it a most excellent reproduction of my picture; the feeling of the original is expressed in a most admirable way, and I am very pleased with the result." The Council felt that they were greatly to be congratulated upon their choice of an etcher for a picture whose subtle qualities presented unusual difficulties of translation, and they believed that the publication of the work would be regarded as an event of distinct importance in the engraving world.

The Council were still unable to report any alteration in the recent Canadian law prohibiting the operations of art unions within the Dominion, but it is hoped that during the present session the desired legislation may be secured.

The report proceeded to deal with the additions that had taken place during the year to the National Gallery, the National Portrait Gallery, the Department of Prints and Drawings at the British Museum, and the Victoria and Albert Museum. The subject of the housing and management of the Scottish National Gallery had been recently under examination by a competent committee, of whom Sir Walter Armstrong was one. At present no definite decision had been arrived at, though a suggestion had been put forward that the National Gallery trustees should endeavour to acquire for their purpose the fine buildings at present occupied by the Royal High School of Edinburgh. Further additions had been made to the collections of the Birmingham Corporation Art Gallery, the Walker Art Gallery in Liverpool, the Oldham Collection, and the Council congratulated Leeds on the successful completion of its scheme for the embellishment of the City-square. It would be seen that their national art collections profited more frequently and liberally by private donation and bequest than by grants from the State, proverbially economical in art matters. It had long been a subject of sad complaint in this country that, owing to the insufficiency of the amount at the disposal of these institutions, they were often obliged, when some great work of art came into the market, to see it pass out of their own reach and go to adorn the galleries of some foreign town. These same difficulties, however, had been felt in other countries, and to meet them associations were formed whose functions were, briefly, the establishment of a fund for the purchase of desirable works of art, thus supplementing the inadequate Government supplies afforded for the purpose. The success of these societies abroad—the Rembrandt Society of Amsterdam, the Kaiser Friedrich Verein of Berlin, and the Société des Amis du Louvre of Paris—had encouraged the "friends" of art in England to form an association on something of the same lines, and the institution of the National Art Collections Fund was the result. This society had a powerful executive committee, and under the chairmanship of Lord Balcarres it was, they hoped, destined to do great things. Deep interest had already been displayed in its initial proceedings, and its birth must be recognised as an important event in the art history of the year 1903. The foundation of another society had also to be noticed—the London Architectural Vigilance Society, under the presidency of Lord Windsor. As its name declares, it proposed to itself the function of protecting æsthetic interests in the treatment of public buildings in London. The report concluded by references to the long list of well-known persons in the world of art who died during the past year.

The Chairman, in moving the adoption of the report, said he might call attention to the fact that during the past year there had been a substantial increase in the number of foreign and colonial members and the subscriptions received through their agency had been a considerable increase upon the previous year. The state of affairs in England had not been favourable to anything in the way of luxury or art, and they, in common with other societies of a similar kind, had felt the depression. At the same time they had not been affected so much as perhaps they might have anticipated. It must be remembered that a Society like that had done much good work in the past and had had a distinct influence on the feeling of Englishmen with regard to art, and after many years of work the field left to cover was not so large. With regard to the picture chosen that year—"The Miller's Meadow"—it might be interesting for them to know that the scene was from the Valley of Lambourne, near Newbury. As they knew, the Canadian subscribers were debarred by the Canadian law from participating in the lotteries, but efforts were being made to get an alteration in the law, which they trusted would be successful.

Mr. Mackrell seconded the motion and the report was adopted.

Lord Windsor was elected President and the Council and officers re-elected.

On the motion of Sir Purdon Clarke, a vote of thanks was passed to Mr. John Sparkes and Mr. T. Buxton Morrison, the Hon. Secretaries.

Votes of thanks were also passed to the Council of the Society of Arts for the use of the room and to the Chairman.

The drawing was then proceeded with for the following prizes:—Painting, "A Surrey Landscape," by J. Clayton Adams; bronze statuette, "Hero," after Miss Margaret Giles; one Marshall vase; twelve Doulton specimen vases; six electro silver inkstands, after Miss K. J. Harris; six sets of framed album mounts in electro silver, after Miss Simpson; six electro bronze statuettes, "Hebe," after Miss Canton; six electro silver bas reliefs, "Descent of Venus," after Mr. Etty, R.A.; six pairs of Doulton vases; twelve pomegranate flower vases; thirty sets of Brandard etchings; and twenty pictures.

RECENT ARCHITECTURE IN BERLIN.

IN noticing the last issue of the *Berliner Architekturwelt* (under the head of "Magazines and Reviews") we mentioned a review of "Berlin Architecture in 1903," by Herr Brüning. It may be of interest to our readers to see something of the views of a German critic on the new architecture of the German capital.

Herr Brüning seems to consider that on the whole German architecture has made progress in the last year. One of the most important changes in this direction was brought about at the Berlin Exhibition of Art. In the competition for designs for an exhibition room, Herr Alfred Balcke was awarded the first premium, but Herr Brüning commends the work of several of the competitors most highly, and also speaks in praise of the exhibition gallery for architects designed by Herr Gessner. Other competitions in which Berlin architects have been successful are:—A college at Freiburg (Herr Heinrich Jennen); schools at Regensburg (Herr Fritz Schwager); the Town Hall at Wilmersdorf (Herr Jansen); and the Town Hall at Lübeck (Herr Otto Kerwien).

Herr Brüning further makes special mention of the Academic Institution for Church Music in Charlottenburg, designed by MM. Anton Adams and Paul Mebes, in a severe Romanesque style, which is in keeping with the character of the Institution. He also notices the church at Münster by Otto Kuhlmann, which, whilst similar in style to other buildings on the Rhine, is yet not a slavish copy of them.

As regards the dwelling houses in Berlin, Herr Brüning considers that the plentiful sprinkling of caryatides, columns and gables, with which so many German buildings are decorated, is gradually being replaced by a more solid form of architecture. In many cases the façade is relieved by a large projection running the whole height of the house and forming the central feature to which the rest of the building is subordinate; this is the case in the houses designed by MM. Paul Engler, Götze and Schraepler, and Schirrmacher and Möller. Of the larger houses may be mentioned the Palace Cohn in Dessau, by Herr Alfred Messel, which is in the form of an important town mansion, and Castle Bartmannshagen, by MM. Erdmann and Spindler, a fine country house.

Herr Brüning notes with approval that the architects of many of these buildings have not been content with designing the exteriors only, but have taken the interior decorations into their own hands, as, for example, B. Bruno Schmitz in his Banqueting House at Mannheim. Others have joined hands with the painters, a combination which cannot fail to have good results on both sides.

THE LONDON COUNTY COUNCIL FIRE BRIGADE.

The London County Council have issued their annual Fire Brigade report. It contains an excellent feature this year in the form of an exceedingly well-drawn map of London with all its Fire Brigade centres and call-points very clearly marked, and the report for this reason alone well merits the study of all interested in fire-protection.

The map shows ninety-seven Brigade centres on land and five river stations. Of the land stations, fifteen are sub-stations and seventy-two are fully-equipped centres, horsed, and ready to turn out in good strength. The map is eminently instructive as to the distribution of the Brigade for the very extensive area it has to protect, but to realise fully the value of this distribution it should be studied with some such map as the large one which was exhibited at the International Fire Exhibition and which shows the distribution of fires for a given year.

It is most curious to note how fires seem to be

common to special districts, and it would almost appear to us that the distribution of stations does not yet quite accord with the location of the important fire areas. The new station at Limehouse will certainly fill an important gap, but we think that the notorious square mile of the City requires even further stations than it will have upon the completion of the new central district station in Cannon-street. It must be admitted that no public body in any part of the Kingdom or in any other country has done so much good work in the rebuilding and erection of new fire stations as the London County Council, but we certainly think that, if funds permit, there are yet several spots which well merit an extra station, even although this may mean considerable extra annual expenditure for additional staff.

The Brigade has completed its past year under a new chief of the highest credentials and considerable personal popularity, and we trust his tenure in office will be as successful as that of his eminent predecessor, Sir Eyre Massey Shaw, whose great merit it was to accord to the building aspect of fire-protection the important position it holds in connexion with the subject, and to be in the closest touch and sympathy with the architects and surveyors who were interested in better building legislation.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

THE Annual General Meeting of the Royal Institute of British Architects was held on Monday at No. 9, Conduit-street, Regent-street, W., Mr. John Slater, Vice-President, in the chair.

Statutory Registration of Architects.

The Chairman, referring to the resolution passed by the Royal Institute on January 4 last—viz., "That a committee, consisting of the Council of the Institute and representatives of the Allied Societies, be appointed to consider the principle of registration and to report thereon to a Special General Meeting," stated that the Committee had been appointed, and had held one meeting—viz., on March 28—at which the following members were present:—Mr. Aston Webb, R.A., President; Messrs. J. Belcher and J. Slater, Vice-Presidents; Mr. Alexander Graham, Hon. Secretary; Messrs. C. E. Bateman, A. W. S. Cross, F. T. Baggallay, E. T. Hall, C. Heathcote, Arnold Mitchell, Beresford Pite, G. H. Fellowes Prynne, W. H. Seth-Smith, John W. Simpson, Leonard Stokes, Members of Council; Messrs. R. S. Balfour, H. V. Lanchester, and Walter Millard, Associate Members of Council; Mr. Henry T. Hare, representing the Architectural Association; and the following representatives of Allied Societies:—Mr. Arthur Clyne (Aberdeen Society), Mr. Arthur S. Parker (Devon and Exeter Society), Messrs. J. T. Cackett and J. Walton Taylor (Northern Association), Mr. Herbert Davis (York Society), Mr. A. Hunter Crawford (Edinburgh Association), Mr. E. M. Gibbs (Sheffield Society), Mr. Howard H. Thomson (Leicester Society), Messrs. G. C. Ashlin, R.H.A., and W. J. Gilliland (R.I.A. Ireland), Mr. H. Dare Bryan (Bristol Society), Mr. A. W. Brewill (Nottingham Society), Mr. Arthur Harrison (Birmingham Association), Mr. J. W. Beaumont (Manchester Society), Mr. H. K. Bromhead (Glasgow Institute). It would be seen, continued the Chairman, that not only had the Council appointed, but they had secured the attendance of a large number of influential men in connexion with the Institute. The matter had been debated at considerable length at the first meeting, and a small sub-committee had been appointed to go into the details of the question and get together the necessary facts, so as to enable the matter to be put before the General Committee. A further meeting had been summoned for May 10, and the whole matter was being thoroughly gone into with a view to reporting to the General Body as to the method of carrying out the proposed registration if it was possible to do so. The Council, concluded the Chairman, had thought it right that the Institute should know what had been done, and had authorised him to make this announcement.

The report of the Council for the official year 1903-1904 was submitted and adopted. The report stated that:—Since the publication of the last annual report the Council have held sixteen meetings, of which the Council elected in June last have held thirteen.

Obituary.—The losses by death have been as follows:—Fellows: Herbert Ford, Charles Fowler, William Warlow Gwyther, Walter Simpson McClelland, Edmund James Martin, William Pain, Percival Gordon Smith, Henry Saxon Snell, Silvanus Trevail, Robert Walker, Nathaniel Young Armstrong Wales. Associates: Arthur Job Barlow, James Martin Brooks, Joseph William Twist. Hon. Associates: Henry William Brewer, William Henry Corfield, Alexander Stuart Murray, Edward Woods. Hon. Corr. Members: Achille Hermant, Valère Dumortier.

It has been decided to award the Medal this year to M. Auguste Choisy, of Paris, Inspector-General in the Service des Ponts et Chaussées, in recognition of his distinguished merits as a writer on architecture. His Majesty the King has signified his approval of the nomination. M. Choisy will come to London to receive the Medal on June 20.

Membership.—The following tabular statement shows the present subscribing membership of the Institute, compared with that at the corresponding periods of the last two years:—

Year.	Fellows.	Associates.	Hon. Associates.	Total.
1902	617	1,071	44	1,732
1903	627	1,117	43	1,787
1904	644	1,142	43	1,829

During the official year since the last Annual General Meeting thirty-seven Fellows have been elected, forty-seven Associates, six Honorary Associates, and five Honorary Corresponding Members. The General Body have approved of a resolution of Council to take steps to alter the by-laws, so that, after December 31, 1906, entrance to the Fellowship shall, except under special circumstances, be confined to Associates or those who have passed the examination qualifying for Associateship. The Council also propose to the General Body an alteration of the by-laws with regard to the proviso to by-law 9.

Form of Contract.—During the official year an agreement between the Institute and the Institute of Builders and the National Federation of the Building Trades Employers of Great Britain and Ireland, with regard to a form of contract, has taken place, and the form now issued bears the endorsement of the three bodies. It is the same, with very slight modifications, as that issued previously by the Institute.

Ancient Lights.—The Ancient Lights Joint Committee have met during the official year, and the Bill, whose title has been changed to the "Easement of Light Bill," is again before Parliament this Session. The thanks of the Council are due to Mr. Fletcher Moulton, K.C., M.P., for introducing and furthering the interests of the Bill.

Building Regulations and By-laws.—The London County Council having requested the Institute to submit amendments to the London Building Act, 1894, for consideration in drafting a new Amendment Bill, the Council entrusted the task to the Art, Practice, and Science Committees, desiring each committee to suggest amendments to those portions of the Act which came within its special sphere of interest. The reports of the three committees were then referred for collation to a special committee appointed by the Council. The amendments as finally drafted by this committee are now under the consideration of the London County Council. The Council have drawn the attention of the Local Government Board to the desirability of uniformity in building by-laws adopted by all the authorities surrounding the Metropolitan boroughs, and of the Board withholding its sanction from proposed by-laws which would prove more onerous than those in the London Building Act. The Council have sent to the Local Government Board, the London County Council, and the London Borough Councils a letter pointing out the unnecessarily drastic character of the new London County Council by-laws as to the deposition of plans with regard to drainage work, and urging simplification.

British Museum Extensions.—The Council have been requested by H.M. Office of Works to assist the Government in obtaining a selection of the best architectural talent available by nominating a limited list of not less than six architects, of taste, skill, and efficiency in classical design, who would be, in their opinion, best qualified to carry out the important work of the proposed extensions to the British Museum.

Southwark Bridge.—The Council have been in communication with the Corporation of London with regard to the association of an architect with their engineer in the erection of the new Southwark Bridge. The Bridge House Estates Committee have requested the President to advise them in obtaining competitive designs for the architectural treatment of the bridge on the structural lines already laid down by their engineer, as soon as the necessary Bill can pass through Parliament. Quite recently, however, difficulties have arisen which may cause considerable delay.

Registration and Education.—On Wednesday, June 24, the President met the Presidents of the Allied Societies in conference on various matters of professional interest. No resolution was moved, but the questions of registration, architectural education, and admission to the Fellowship were discussed, each President being called upon in turn to state his views. It was decided not to publish a report of the proceedings, their great value being the free interchange of opinions between the heads of the London and provincial bodies. On January 4 the question of registration was definitely brought before the notice of the Institute, at a General Business Meeting. Certain motions on the agenda were withdrawn in favour of an amendment providing that the whole question of registration should be referred to a committee consisting of a Council and representatives of the Allied Societies. At their next meeting the Council passed the following resolution:—"Seeing that the Council as at present constituted consist of twenty-four London members and fourteen non-metropolitan members, the Registration Committee be formed by associating with the Council ten additional representatives of the Allied Societies, so that the number of the London and non-metropolitan members of the committee be the same; further, that these ten do consist of one representative from each of the eight Societies not at present represented by their Presidents on the Council, and of one additional representative from each of the two Societies which are numerically strongest in professional members, and which have not two or more of their members at present on the Council." Representatives having been appointed by the various Societies in accordance with this resolution, a preliminary meeting of the Committee was held on Monday, March 28. The Council have appointed a committee consisting of representative architects of the United Kingdom, both members and non-members of the Institute, and of such prominent educationalists as Sir Arthur Rücker, Professor Perry, and Mr. Sidney Webb, to devise a scheme for the co-ordination of architectural education throughout the country. The committee and a sub-committee have met several times, and the Council have received and considered interim reports. As the committee is still sitting, the Council beg leave to defer a fuller report to a future date.

Public Works and Municipal Officials.—The question of County and Municipal Authorities employing their own salaried officials to design and execute important public buildings has received the serious attention of the Council, who have appointed a committee consisting of some of their London members and all the Presidents of Allied Societies to inquire into and suggest remedies for what they cannot but regard as a growing evil. The members of the committee and various architects in the provinces have supplied the committee with valuable information in writing as to facts bearing on the question which have come within their own experience, and various Honorary Foreign Correspondents and Architectural Societies abroad have also been kind enough to provide the committee with interesting statements as to the position of affairs in their respective countries. The collation of the large mass of information received is now being proceeded with, and the committee hope to submit their report to the Council before the end of the session.

Standardisation of Materials, etc.—The Council have approved the standard size of bricks recommended by the Science Committee, after some years of negotiation and conferences with representatives of the Institution of Civil Engineers and the Brickmakers' Associations. A copy of the standard, to be known as "The R.I.B.A. Standard Size of Bricks," has been sent to all the brickmakers in the kingdom, and the Council have issued a request that members should insert the standard sizes in their specifications. The makers of glazed bricks have also had their attention drawn

to the standard. The Chairman of the Science Committee has been appointed by the Council to represent the Institute on the Sub-Committee on Cement of the Engineering Standardisation Committee. The report of brickwork tests is now being printed, and will be issued in volume form as soon as it is ready. The Council have appointed Messrs. Thomas Blashill, W. D. Caröe, and H. D. Searles-Wood to represent the Institute on a Committee of the Plumbers' Company, the Water Authorities, and the Royal Institute of British Architects, to inquire into the waste of water and the question of plumbers' fittings in water supply.

Liverpool University.—Sir William Emerson, Past-President, on the recommendation of the Council, has been appointed a member of the Court of the Victoria University, Liverpool.

Congresses and Public Committees, etc.—Mr. John Slater attended as the Institute representative at the International Congress of Hygiene and Demography held in Brussels on September 7 last year. The following have been appointed to represent the Institute at the Sanitary Institute Congress to be held in Glasgow in July:—Messrs. J. J. Burnet, A.R.S.A., E. T. Hall, Thos. W. Cutler, and Mr. John Keppie, President of the Glasgow Institute of Architects. Messrs. T. E. Collcutt, T. W. Cutler, and the Secretary were appointed by the Council as the Institute delegates to the Sixth International Congress of Architects, held at Madrid from April 6 to 13. Messrs. John Slater, J. W. Simpson, and the Secretary were appointed by the Council to represent the Institute on a Consultative Committee, authorised by the Board of Education, and assembled for the purpose of inquiry into the possibility of instituting a leaving examination from secondary schools throughout the country, which might stand in lieu of the preliminary examinations required by the various professional bodies. The committee has not yet issued its report.

Portraits, Memorials, etc.—Mr. H. H. Statham has been appointed by the Council to represent the Institute on a committee formed under the auspices of the Hellenic Society to effect the erection at Athens of a memorial to the late Mr. F. C. Penrose. The Institute Memorial to Mr. Penrose has been placed in the crypt of St. Paul's Cathedral, and will shortly be unveiled. The Institute portrait of Sir William Emerson, Past-President, by Mr. J. J. Shannon, A.R.A., will be exhibited this summer at the Royal Academy.

Competitions.—Various changes in the "Suggestions" proposed by the Competitions Committee and approved by the Council were adopted by the General Body at the General Meeting of February 29. The Council have decided to send a circular letter to every member of the Institute in respect of any competition concerning which the Competitions Committee consider that such a course is desirable, requesting him not to compete. As an instance of the difficulty of awakening in the lay mind an appreciation of the value of correct dealing in the matter of competitions, the Council would report that, in view of the various unsatisfactory competitions for Carnegie Libraries, they wrote to Mr. Andrew Carnegie suggesting that he should insert in his future deeds of gift a condition that, if the beneficiaries contemplated instituting a competition for the proposed building, such competition should be conducted according to the Institute's "Suggestions," and were met by that gentleman with a curt refusal.

Government Buildings.—At the opening meeting of the session Lord Windsor, First Commissioner of Works, spoke encouragingly as to the possibility of forming an Advisory Committee to whom the architectural considerations involved in large building schemes might be referred by the Government. The Council have written to Lord Windsor a formal letter asking him to lay before His Majesty's Government their request that such a committee should be appointed. The Council understand that for some time past a committee, consisting of the President, Sir John Taylor, K.C.B., and Mr. John Belcher, A.R.A., has been requested by the Office of Works to advise them from time to time on various buildings of public importance.

Miscellaneous.—The Council are glad to be able to report that the Institute continues to enjoy financial prosperity. The balance of income over expenditure is 918*l.* 11s. 4d., after the payment of a grant of 500*l.* to the Architectural Association Building Fund. The Council have accepted an invitation from the Society of Designers that the President for the time being of the Institute should be an Honorary Member of the Society. The Council have subscribed 5*l.* to a memorial in Brussels to the late M. Valère Dumortier, one of the founders of the Société Centrale d'Architecture de Belgique. During the official year a telephone (P.O. 434 Mayfair) has been fixed in the clerks' office, for the use of the office and of members and a telegraphic address ("Ribazo, London") has been registered at the General Post Office.

In concluding the report the Council feel that the thanks of the Institute are due to the Standing Committees, the Competitions Committee, and to the Allied Societies and their representatives for the specially valuable assistance they have rendered the Institute during the past year.

The Art Standing Committee.—At the first meeting of the committee Mr. Macvicar Anderson was elected Chairman; Sir Wm. Emerson, Vice-Chairman; and Messrs. J. S. Gibson and W. D. Caröe, Hon. Secretaries. The committee has met four times, and the following subjects have received consideration:—Tintern Abbey, London Suburban Building By-laws, Lambeth Bridge (proposed rebuilding), Southwark Bridge, Berwick-upon-Tweed Bridge, Peterborough Market Hall, London Building Acts (Amendment) Bill, Advertisement Abuse on Buildings, London Traffic Commission, the Wooden Pediment and Dome of Somerset House. It will be seen that the question of bridge design has again occupied a considerable amount of the committee's deliberations, and it has to express regret that this is owing both to the callousness of authorities in regard to ancient structures in their keeping, and to the general inability of the public to appreciate the fact that the construction of bridges, especially across great waterways, affords fine architectural opportunities. The committee, in calling attention to the fact that the Lambeth Bridge rebuilding scheme is at a standstill, would take the opportunity of pointing out that nothing should be left undone to keep alive the architectural importance of this projected structure. It is satisfactory to record that the Corporation of the City of London has realised its responsibility in regard to Southwark Bridge, by appointing the President R.I.B.A. as one of the assessors in the proposed limited competition of architects and engineers for designs; thereby recognising that the æsthetic considerations involved are material to the community. At Berwick-upon-Tweed some progress, on the lines urged by this committee, has been made, and it is gratifying to record a hope that an historical and interesting ancient bridge will thus receive proper treatment.

The Literature Standing Committee.—Since the election of the present committee in June, 1903, the Literature Committee have held eight meetings. At the first meeting Mr. R. Phené Spiers was re-appointed Chairman; Mr. H. Heathcote Statham, Vice-Chairman; Messrs. Leslie Waterhouse and A. Maryon Watson were appointed Hon. Secretaries. The committee have to deplore the loss of one of their most distinguished members, Dr. Alexander Stuart Murray, Keeper of Greek and Roman Antiquities at the British Museum, and a classical archæologist of European repute. Dr. Murray has not only enriched the proceedings of the Institute with many scholarly contributions, but by his frequent attendance at the deliberations of this committee he has also rendered services whose value will not soon be forgotten.

The Practice Standing Committee.—The usual monthly meetings have been held, with one exception, and, in addition, three special meetings and ten sub-committee meetings for consideration of the London Building Acts (Amendment) Bill, 1904. All the meetings have been well attended. The following officers were elected at the commencement of the session:—Mr. J. Douglass Mathews, Chairman; Mr. A. H. Kersey, Vice-Chairman; Mr. C. H. Brodie and Mr. E. Greenop, Hon. Secretaries. It was with deep regret that the committee found that Mr. S. Flint Clarkson's health would not allow of his continuing to take further part in the work of the committee. The greater part of the time of the committee during the session has been occupied by the consideration in detail of the present London Building Act, 1894, with a view to suggesting amendments thereto, upon the invitation of the London County Council, for their consideration in the preparation of an amended Act for submission to Parliament. Much labour was involved in this, and, in addition to the ordinary meetings, three special meetings and ten sub-committee meetings were, as already mentioned, held. At the instigation of the committee a circular was sent to all the members of the Institute inviting suggestions for the amendment of the present Act. A large number of replies were received and considered by the committee. The committee reported very fully to the Institute Council, who then referred the whole matter to a special committee, consisting of the Chairmen of the Art, Practice, and Science Committees, with two members of the Council. The final report of this special committee was sent to the London County Council from the Council of the Institute. An expression of the views of the Institute upon the draft "By-laws of the Corporation of the City of London relating to the Demolition of Buildings" having been invited by the Corporation, the matter was referred by the Council to the committee. The proposed by-laws were considered in detail and a report made. As the result of the recommendations in the report, and their support by the Chairman (Mr. Douglass Mathews) in the Corporation, some valuable amendments were secured As, however, the Corporation declined to give way upon certain items which, it was considered, imposed, as they stood, unnecessary and costly restrictions upon building operations in the City, the committee recommended the Council to forward their objections to the Local Government Board. This course was adopted. The Institute of Builders having expressed to the Council their desire to confer with the Institute in this matter, a deputation from that body was received by the Practice Committee, and expressed their agreement with the proposed amendments. Two objections to the Institute scale of charges were raised by two members of the Institute, and suggestions were made that the schedule should be amended. The committee fully considered the points raised, and decided that it was not advisable to again alter a schedule which had so recently been revised, more especially as the two cases brought to their notice could only under exceptional circumstances involve any hardship or difficulty.

The Science Standing Committee.—The Science Committee have held nine meetings, with an average attendance of eleven, since the publication of the last report. Mr. Lewis Solomon was appointed Chairman; Mr. Max Clarke, Vice-Chairman; and Mr. H. D. Searles-Wood and Mr. Bernard Dicksee, Hon. Secretaries. The report on the brickwork tests is in print and will be shortly published. The R.I.B.A. standard size of bricks has been finally agreed to, and comes into force on May 1, 1904. The committee, at the request of the brickmakers, are now endeavouring to standardise glazed bricks in harmony with the Institute standard. The Chairman has attended the meetings of the Joint Standard Committees which have standardised the rolled joint sections; the Chairman is a member of the Joint Committee which is now engaged in standardising the specifications and tests for Portland cement. At the request of the Fire Offices Committee they have under consideration the regulation relating to fire-resisting building with a view to making suggestions that may make these rules more useful. The committee reported to the Council on the amendments to the London Building Act; and their draft by-laws for skeleton buildings and supports under superstructures have been forwarded to the London County Council.

The Council were authorised to elect scrutineers, the majority of whom shall be Fellows, for the annual election of the Council and the standing committees.

Messrs. Sydney Perks and H. A. Crouch were nominated as auditors for the ensuing year of office. A vote of thanks was passed to Messrs. Louis Ambler and W. A. Forsyth, last year's auditors.

The existing Statutory Board of Examiners under the London Building Act, 1894, and other Acts of Parliament was re-appointed for the ensuing year of office.

The meeting then terminated

TRAMWAYS AND LIGHT RAILWAYS ASSOCIATION.—The meeting called for Friday, May 6, 1904, at the Society of Arts, has been postponed to a later date, of which due notice will be given by the Secretary.

THE SURVEYORS' INSTITUTION.

PROFESSIONAL EXAMINATIONS, 1904.

The following student candidates have passed the examination for the Professional Associateship:—

H. A. Adams, Hampstead, N.W.; H. C. Allen, West Hampstead, N.W.; R. S. Andrews, Wolvercote, Oxford; P. M. Ashbridge, Wanstead, N.E.; D. F. Aynsley, Gosforth, Newcastle-on-Tyne; F. L. Baker, Thorley, near Bishop's Stortford; S. F. Barton, Walthamstow, E.; R. L. J. Bedford, Acton, W.; B. Blackbourn, Upper Tooting, S.W.; V. H. Blessley, West Hampstead, N.W.; H. C. Boden, Putney, S.W.; W. E. Brown, Chester; H. Burch, Highgate, N.; F. M. Burr, Hornsey Rise, N.; C. M. Chaplin, Saxmundham; J. G. Chapple, Chiswick, W.; •W. C. Clemens, Plymouth; A. L. Clemesha, Chiswick, W.; A. H. Corble, Waltham Abbey; E. H. Dean, Westminster, S.W.; F. E. Dixon, Ryde, Isle of Wight; S. Edwards, Exeter; F. R. Elloart, London; G. W. Ferris, Maida Hill, W.; G. F. Finch, Crouch End, N.; S. J. Fox, Crouch Hill, N.; A. S. France, Streatham Hill, S.W.; H. J. Gale, Benson, Oxfordshire; G. S. Gotelee, Croydon; E. L. Gruning, East Witton, Middleham, R.S.O., Yorks; V. M. Hall, Hampstead, N.W.; C. P. Harrington, Clapham Park, S.W.; E. T. Haslehust, Weybridge; R. W. Hawke, New Barnet; J. Hayward, Bath; L. Hobbs, Kelmscott; Lechlade; F. V. Hobson, London; R. L. Honey, Rochester; S. Hooper, Hornchurch; J. N. Horsfield, jun., Kingston-upon-Thames, S.W.; R. W. McL. Keay, Crouch End, N.; W. H. Lamble, Acton, W.; J. R. McDonald, Southall; G. A. Minter, Faversham; T. H. Moore, Tewkesbury; J. S. Naylor, Beckenham; A. O. Noakes, Willesden Green, N.W.; †C. F. Norman, London; B. C. Page, Clapham, S.W.; E. Page, Camden Town, N.W.; H. Page, Barnet; J. O. Payne, Bromley; F. C. Pearson, Morecambe, Lancashire; C. W. Perry, London; A. P. Pickersgill, Putney Hill, S.W.; A. B. Pritchard, Highbury, N.; T. W. Punchard, Kirkby Lonsdale; D. A. Rawlence, Salisbury; H. W. Redfern, Hampstead, N.W.; B. L. Rice, Watford; F. W. Rivers, Wandsworth Common, S.W.; P. H. Ross, Holloway, N.; H. E. Sherwin, Wandsworth Common, S. W.; F. M. Skelt, Leytonstone, N.E.; L. J. Small, Broadstairs; R. B. Stephenson, Darlington; H. T. Tate, Gargrave, *viâ* Leeds; C. A. S. Vardy, Maidenhead; M. H. Vickerman, Wembley; J. L. H. Vivian, Wandsworth Common, S.W.; P. D. Voisey, Exeter; H. West, Ryde; R. S. White, Cambridge House, near Stonehouse; J. B. Williams, St. Helens; H. Wood, Great Grimsby; E. E. Woodbridge, Harrow; J. P. Woodhams, Hastings; B. Worrall, Whalley Range; E. H. Wright; Plumstead, S.E.

Scottish Candidate.—A. K. Foulis, Motherwell, N.B.

The following Non-Student Candidates have also passed the examination for the Professional Associateship:—

A. H. Abbott, Boscombe; H. J. Ash, Stamford; S. Balster, Woolwich, S.E.; H. J. Barber, Andover; G. W. Barnham, Watton; C. F. Bartholomew, Plumstead, S.E.; O. G. Bates, Croydon; H. Bellamy, York; A. F. Benjamin, London; P. J. Bevington, Canonbury, N.; J. W. B. Blackman, Brighton; J. W. Blair, Nuneaton; A. E. Blake, Trowbridge; L. Blanc, Earl's Court, S.W.; P. E. Boddington, Willesden Green, N.W.; E. B. Bowen, London; F. A. Boyton, Old Fulham, S.W.; J. Bray, Guildford; J. C. Brooke, Barking; G. F. Burton, Radcliffe, near Manchester; A. Chambers, Beckenham; R. L. Charteris, Attleborough; R. Chew, South Kensington, S.W.; A. H. Clarke, Walthamstow; W. H. C. Clay, Derby; C. C. Commander, Walthamstow; T. Cook, Clapham Common, S.W.; C. F. A. Cooper, Rugby; G. F. Cotching, Horsham; A. S. Cox, Ealing, W.; H. R. Crabb, London; W. St. L. Crowley, Cardiff; H. W. Cubitt, London; F. S. Cutler, Hounslow; W. J. Dacombe, Bournemouth East; R. T. Dadson, Harrow-on-the-Hill; G. C. Davenport, Headington Hill, Oxford; J. Davey, Old Charlton; J. N. Davies, London; W. E. Denham, Tottenham, N.; W. Dewe, Henley-on-Thames; E. H. Dodgson, Stevenage; R. C. Duttson, Sydenham, S.E.; W. A. D. Edwardes, Sutton; J. P. Edwards, Peckham, S.E.; J. Ellis, Pantybarwn, Llangwyryfon; G. F. Ellyatt, Camberwell, S.E.; C. E. A. Ermen, St. Tudy, R.S.O.; H. Ermrich, Croydon; B. Everard, London; C. H. Eyles, Kensington, W.; H. J. Fagan, Clapham, S.W.; C. H. Farthing, Southsea; E. W. Farwell, Bath; H. E. Fitzherbert, Downton; F. G. Gee, Norwich; E. M. Gilbert-Lodge, Chiswick, W.; E. B. Glasier, Wimbledon Park, S.W.; R. F. Graham, London; W. Greenwood, Blackburn; S. J. Halse, Fulham, S.W.; C. R. Harding, East Grinstead; J. F. S. Hards, Westminster, S.W.; F. J. Harrington, London; J. J. Hazlett, Kildare; R. C. Heard, Bridgwater; F. J. Henson, Tonbridge; E. Highway, Cirencester; W. W. Hodges, Croydon; L. S. Hoggarth, Kendal; D. C. Hogwood, Ramsgate; W. J. Holloway, Dunmow; E. G. Houghton, Woodford Wells; E. G. Huggins, Highbury, N.; O. W. Hunt, Richmond, Yorkshire; H. D. Hunter, Buckenham; T. L. Hustler, Stoke Newington, N.; F. N. Hutton, Finsbury Park, N.; A. Inskipp, Harlesden, N.W.; W. L. Jenkins, London; G. N. Kingsford, Wye; J. Lees, Hale, Altrincham; H. W. Line, London; R. W. Lines, Tring; A. H. Llewellyn, London; ‖ G. T. Loban, Streatham Common, S.W.; W. M. Lynde, Balham, S.W.; E. C. McConnel, Downton; J. W. McKerrow, Newcastle-on-Tyne; T. F. Main, Budle, Bamburgh, R.S.O.; F. S. Mason, Putney, S.W.; B. S. Mayhead, Lavender Hill, S.W.; J. F. S. Mellor, Lytham; E. H. G. Miller, Old Malden, Worcester Park; G. F. Miller, Alexandra Park, Manchester; A. E. Mirams, Alexandra Park, N.; S. Mitchell, Leicester; C. Moiser, York; W. S. Newbery, Battle; W. W. Newman, Loughborough; E. G. Nye, Guildford; C. N. Palmer, Ealing, W.; W. L. F. Palmer, Knowle, Bristol; W. H. Parker, Stanmore; H. B. Paxon, London; G. S. Perkins, Teddington; F. N. Pilbeam, Kensington Park, W.; J. M. Pilkington, Cricklewood, N.W.; R. R. Power, Clapham Road, S.W.; T. F. V. Prickard, Dderw, Rhayader; C. D. Quarmby, Blackheath, S.E.; B. P. Riddett, Ryde, Isle of Wight; H. Rippon, Tufnell Park, N.; E. L. Roberts, Sheffield; L. N. Rogers, Putney Hill, S.W.; M. S. Rogers, Putney Hill, S.W.; J. W. Roper, Tonbridge; F. W. Rowe, Rainbow Hill, Worcester; T. Rule, Aspatria; E. Russ, St. John's Wood, N.W.; E. S. Ruthen, Routh, Cardiff; J. Ryan, London; P. E. Sargant, Balham, S.W.; A. P. Saunders, Ealing, W.; H. N. Savill, Broxbourne; J. C. Scott, Grantham; L. C. Sharma, Gray's Inn, W.C.; A. G. Sladdin, Brighouse; A. W. Slatter, Hereford; E. E. Smith, Dartford; ‡H. R. Smith, Warnham; G. W. S. Sparrow, Albrighton Hall, near Shrewsbury; J. C. Spensley, Hampstead, N.W.; H. E. Steeds, Birmingham; C. J. Strachan, Belsize Park, N.W.; J. W. Tait, Bangor; H. E. Tasman, West Hampstead, N.W.; H. W. Taylor, Clapham Common, S.W.; T. O. Taylor, Muswell Hill, N.; A. Temple, Streatham, S.W.; H. D. Thomson, Hammersmith, W.; G. E. Thurman, Upper Holloway, N.; A. M. Thwaites, Hornsey, N.; G. P. Thwaites, Hornsey, N.; H. J. Titford, Edenbridge; M. Tobias, London; L. E. Todd, Hawarden, Chester; E. A. Toley, East Acton, W.; R. E. Turnbull, Bothal, Morpeth; J. Voyce, Manchester; J. G. Walker, Spring Gardens; B. H. Waller, Southampton; F. W. Walsh, Kilburn, N.W.; W. D. Walters, Tonypandy; B. E. Waterman, Dartford; E. Watson, St. Paul's Cray; J. K. Waymouth, Crouch Hill, N.; A. D. M. Webber, Bryn Bellan, Mold; W. H. Webber, London; W. Wheeler, Notting Hill, W.; S. D. Whiddington, Crouch End, N.; E. B. Whitley, Camden Square, N.W.; L. S. Whittingham, Powis Castle, Welshpool; A. D. Williams, Ramsgate; G. L. Wilson, Wandsworth Common, S.W.; D. Wood, Clifton Hill, N.W.; S. E. Wood, Canonbury, N.; C. E. Young, Barking.

Scottish Candidates.—R. F. Brebner, Falkirk; J. S. J. McCall, Kelvinside, Glasgow; J. L. Thompson, Edinburgh.

The following Professional Associates have passed the Fellowship Examination:—

W. B. Aubrey, Thame; F. H. Austin, London; R. H. Barclay, Clapham, S.W.; H. B. Beddall, Kettering; H. W. Binns, Richmond, Surrey; F. G. Bliss, London; E. W. Booth, Croydon; B. A. Boyton, Fulham, S.W.; H. C. Bradshaw, Rotherwick, Winchfield; T. Brent, Redhill; J. Burnett, Gopsall, Atherstone; C. F. Burroughes, Leicester; W. E. Candy, Encombe, Wareham; T. L. Caton, Brixton, S.W.; A. W. Champernowne, Sidbury, Sidmouth; J. Chandler, Finchley, N.; C. V. Chilwell, Hyde Park, W.; H. O. Clark, London; J. H. Coles, Barnet; H. T. Cooper, Portman-square, W.; P. Crabtree, Leigh; J. L. Crouch, London; C. H. Donne, Leek Wootton; E. G. Drower, Westminster, S.W.; M. C. Duchesne, Farnham Common, Slough; F. B. Dyer, Lewes; G. P. Elphick, Chester; E. W. Fagg, Kensington, W.; C. J. Fowler, Clapham Common, S.W.; C. G. French, East Finchley, N.; H. F. Funnell, Camberwell, S.E.; A. Gimson, Pinner; P. F. Gleed, London; R. H. Goodchild, Norwich; H. N. Gray, London; O. Griffiths, Covent Garden, W.C.; J. T. C. Hazledine, Burlton Hall, near Shrewsbury; F. S. Henniker, Balham, S.W.; W. D. Heskett, Penrith; P. W. Home, Finsbury Park, N.; H. How, London; E. Howard, Barnet; A. W. Hudson, Stoke Newington, N.; R. S. Jackson, Sittingbourne; H. H. James, South Kensington, S.W.; R. C. Jonas, London; J. R. Jones, Stroud Green, N.; R. C. Jull, Tunbridge Wells; W. H. Keep, Covent Garden, W.C.; H. J. T. Kibblewhite, Mildmay Park, N.; F. C. Knibb, Clapham Common, S.W.; §G. P. Knowles, London; G. A. Lambert, Wood Stanway, Winchcombe, R.S.O.; A. R. S. Leaning, Brixton, S.W.; L. Lickis, Clapham Common, S.W.; W. J. Luffingham, Spring Gardens, S.W.; W. V. Lush, Wembley, R.S.O.; M. L. Lyon, Fulham, S.W.; S. Mager, Hughenden; L. Maggs, Gunnersbury, W.; T. E. Marks, Leeds; H. W. Mason, Barnes, S.W.; E. L. Moore, Muswell Hill, N.; I. C. Morrison, St. Albans; J. N. Neill, Leeds; •• F. G. Newnham, South Norwood, S.E.; L. R. Notley, London; J. Nutter, Morecambe, Lancashire; F. H. G. Osmond-Smith, East Grinstead; F. C. R. Palmer, Westminster; S. Parkhouse, St. Quintin Park, W.; A. E. Parry, Balham, S.W.; T. W. Pearse, Modbury, South Devon; G. F. J. Peters, Ashstead; C. N. Philpot, Dunsmore, Warlingham; S. L. Porter, Mayfield, Hutton; F. C. J. Read, New Cross, S.E.; M. C. Riddett, Charlbury; A. H. Rippingal, Thornton Heath, Surrey; G. W. Ruddle, Greenwich, S.E.; J. H. Salmon, Streatham Hill, S.W.; J. A. Sawyer, Winchester; J. Scott, Putney, S.W.; W. Smalley, Euston-square, N.W.; C. P. Smith, Greenwich, S.E.; H. Smith, Chelmsford; Q. C. Smith, Lincoln's Inn Fields; S. A. Smith, Monkseaton; F. E. Spalding, Hampstead, N.W.; H. S. Stewart, Wimbledon Park, S.W.; F. Stone, Newcastle, Staffordshire; J. Stooke, Hereford; J. J. Strutt, Witham; P. J. Symmons, Harrow; F. J. Tallboy, Ilford, Essex; E. T. Taylor, Ansdell, near Lytham; J. J. Taylor, Norbury, S.W.; A. Timbrell, St. Albans; W. Tomlin, jun., Andover; E. Underwood, Earl's Court, S.W.; L. J. Veit, Pimlico, S.W.; A. L. Watt, Figheldean, Salisbury; A. H. Wells, Ashby-de-la-Zouch; B. W. White, London; H. W. Whitton, Caswell, Towcester; ††C. E. Widdicombe, Ryde, Isle of Wight; J. F. Wilkes, Saffron Walden; J. G. Wood, London; C. L. Wright, Bristol.

The following candidates have passed the Direct Fellowship Examination:—

A. Briggs, Manchester; N. Chennells, St. Leonards; F. W. Cook, Addiscombe; A. D. Fenton, Roborough; C. M. Maltby, London; G. A. Ovitts, West Ham, E.; J. S. Rimmer, Liverpool; F. Weston, London.

Scottish Candidate.—J. S. Paterson, Cummertrees, Annan, N.B.

ST. PAUL'S CATHEDRAL.—It is announced that the Wellington Chapel in St. Paul's is to be adapted for use as the chapel of the Order of St. Michael and St. George. That order consists of members who have rendered distinguished services in the Crown colonies, or in matters connected with our colonial administration. The chapel, at the west end of the south aisle, takes its name from having been the place wherein Stevens's monument to the Duke of Wellington was first erected. Since the recent removal of the monument into the nave, the chapel has been used for sittings of the Consistory Court of London; it will now be refitted with the knights' stalls, banners, etc., under the superintendence of Mr. Somers Clarke, architect and surveyor to the cathedral.

• Institution Prize. † Special Prize.
‡ Penfold Silver Medal. ‖ Driver Prize.
‡ Beadel Prize. § Galsworthy Prize.
•• Crawter Prize. †† Penfold Gold Medal.

THE LONDON COUNTY COUNCIL.

THE usual weekly meeting of the London County Council was held on Tuesday in the County Hall, Spring Gardens, S.W., Mr. J. Williams Benn, Chairman, presiding.

Loans.—On the recommendation of the Finance Committee, it was agreed to lend Battersea Borough Council 3,081*l.* for various purposes and Hammersmith Borough Council 3,918*l.* for street improvement; sanction was also given to Bermondsey Borough Council to borrow 33,400*l.* and 10,000*l.* for erection of working-class dwellings.

Extension of Hampstead Heath.—The Parks Committee recommended that the Council contribute 8,000*l.* towards the purchase of 80 acres of land, situated adjoining the North-western boundary of Hampstead Heath.

Mr. Bridgman moved, and Colonel Rotton seconded, an Amendment to the effect that further expenditure in this direction was not justified, and that the recommendation be referred back to the Committee.

The Amendment was defeated and the recommendation agreed to.

Main Drainage Extension.—The Main Drainage Committee recommended that an advertisement be issued inviting tenders for the construction, in accordance with the plans prepared by the Engineer, of a portion of the two additional lines of outfall sewers between the Abbey-mills pumping-station and the Barking outfall works, such portion to commence at a point about 350 ft. east of East Ham manorway and to extend to the west side of the precipitation channels at the Barking outfall works.

An amendment was moved and adopted to refer the matter to the Works Committee.

Golder's Hill.—The Parks and Open Spaces Committee recommended that the estimate of 762*l.*, submitted by the Finance Committee, be approved; and that expenditure not exceeding that amount be authorised for the work of adaptation of part of the mansion at Golder's Hill as conveniences, and as a residence for the superintendent; and that tenders be invited for carrying out the works.

On the motion of Sir W. Collins, seconded by Mr. Jephson, the recommendation was referred back to the Committee.

Theatres.—The Theatres and Music Halls Committee stated that they had considered plans, submitted by Messrs. F. Matcham and Co., of a theatre proposed to be erected at the junction of Coventry-Street and Rupert-street. The plans show seating accommodation for 712 persons. They also reported that they had considered plans, submitted by Messrs. Owen and Ward (for Mr. C. Sounes), of a theatre proposed to be erected at the junction of East India Dock-road and Stainsby-road, Poplar. The plans show seating accommodation for 1844 persons. The applications were granted on certain conditions.

District Surveyors' Districts Map.—The Building Act Committee reported that in October, 1901, they gave instructions for the preparation of a map showing the areas of district surveyors' districts, and of the metropolitan boroughs. Estimates were obtained for the supply of 1,000 copies of the map, and the lowest estimate being that of Messrs. Phillips and Co., who agreed to carry out the work for 50*l.*, the order was given to that firm. Owing to the number of new appointments of district surveyors and the alterations that have been made in the districts, the issue of the map has been delayed, and the cost of production increased by 5*l.*, so that it had become necessary for them to obtain sanction to the expenditure. The copies had now been delivered and were on sale.

General Line of Buildings on South Side of Fulham-road, Westward of Munster-road.—They also recommended and it was agreed, that the solicitor do take all necessary steps to obtain the decision of the High Court upon the case stated by the Tribunal of Appeal, constituted under the London Building Act, 1894, in the matter of their order as to the general line of buildings on the south side of Fulham-road, westward of Munster-road.

Carr's Restaurant, Holborn to Strand.—The Improvements Committee recommended and it was agreed, that the payment of 763*l.* 6s. 5d. to Mr. George Cox, in respect of the additional expense incurred by him in rebuilding a portion of Carr's restaurant in Portland stone as required by the Council, instead of in terra-cotta, be approved, and that the matter be referred to the Finance Committee to complete.

The Council adjourned at 7.30 p.m.

APPLICATIONS UNDER THE 1894 BUILDING ACT.

THE London County Council at their meeting on Tuesday dealt with the following applications under the London Building Act, 1894. The names of applicants are given between parentheses:—

Lines of Frontages and Projections.

Lewisham.—Three buildings on a site abutting upon the west side of Church-road and north side of South-road, Lewisham (Mr. J. M. Kennard for Mr. E. C. Christmas).—Consent.

Hackney, Central.—One-story shops upon part of the forecourts of Nos. 263, 265, 267 and 269, Mare-street, Hackney, with the northernmost shop to abut also upon Richmond-road (Messrs. Hodson and Whitehead for Messrs. Hodson and Co.).—Consent.

Westminster.†—A one-story addition to the existing porch at the flank of No. 1, Montpelier-square, Knightsbridge (Mr. A. Williams for Mr. C. D. Harrod).—Consent.

Hammersmith.—A one-story shop upon part of the forecourt of No. 358, King-street, Hammersmith (Mr. E. Richardson).—Consent.

Lewisham.†—Houses on the west side of Mayow-road, Sydenham, southward of the Sydenham recreation ground (Messrs. J. Edmonson and Son).—Consent.

Finsbury, Central.†—Re-erection of one-story buildings upon the forecourts of Nos. 184 and 186, Pentonville-road, Clerkenwell (Messrs. Bertram, Parkes and Knight for Messrs. A. and H. Knight).—Refused.

St. Pancras, South.—Buildings upon the site of Nos. 45 to 113 (odd numbers), inclusive, Euston-road, St. Pancras (Mr. W. C. Jones for the Worshipful Company of Skinners).—Refused.

St. Pancras, South.—Buildings upon the site of Nos. 23 to 35 (odd numbers), inclusive, Euston-road, St. Pancras (Messrs. Parr and Sons for Mr. W. F. Howard-Flanders).—Refused.

Marylebone, West.—A building on the site of Nos. 257 to 265 (odd numbers only), inclusive, Marylebone-road, St. Marylebone (Mr. L. Stokes for the National Telephone Company).—Refused.

Wandsworth (detached).—One-story shops on the part of the forecourts of six houses on the north side of Rosendale-road, Herne-hill, between No. 1, Park-villas and Guernsey-grove (Mr. P. C. Davies for Messrs. R. Parry, H. Eaborne, and F. J. Chapman).—Refused.

Width of Way.

Hampstead.†—A building on a site abutting upon Streatley-place, Murray-terrace and Newend, Hampstead, with a forecourt fence at less than the prescribed distance from the centre of the roadway of Streatley-place (Mr. W. S. Cooke for the School Board for London).—Consent.

Marylebone, West.—Rebuilding of Nos. 4 and 5, Cumberland-mews, Edgware-road, St. Marylebone (Messrs. Hudson and Hunt for the Church Army).—Consent.

Width of Way and Lines of Frontage.

Hammersmith.—The retention of a wooden shed at the rear of No. 103, Askew-road, Hammersmith, with the external walls at less than the prescribed distance from the centre of the roadway of Landor-road (Mr. W. Smith).—Consent.

Fulham.—A urinal at the rear of the Imperial beer-house, Sands-end-lane, Fulham, to abut upon Stanley-road (Messrs. W. D. Church and Son for Mrs. E. Wilson).—Consent.

Wandsworth.—New tramcar sheds on a site on the west side of Jews-row, Wandsworth, abutting also upon Marl-street and Church-walk, with external walls at less than the prescribed distance from the centre of the roadway of Church-walk (Mr. E. J. Edwards for the Highways Committee of the Council).—Consent.

Islington, East.—A building at the rear of No. 121, Ball's-pond-road, Hackney, to abut upon Culford-road (Messrs. Weibking and Co. for Mr. J. Schofield).—Refused.

Line of Frontage and Space at Rear.

Kensington, South.—A deviation from the plans approved on for the erection of residential flats on the site of Nos. 34 to 44 (even numbers only), inclusive, Abingdon-villas, to abut also upon Allen-street, Kensington, so far as relates to an increase in the height of the rear parapet of the building, and also the erection of an angle turret at the first, second, third, and fourth floor levels of such building (Mr. S. Newcombe for Mr. W. J. Blow).—Consent.

Space at Rear.

Southwark, West.—A modification of the provisions of section 41 of the Act with regard to open spaces about buildings, so far as relates to the proposed erection of an addition at the rear of No. 176, Blackfriars-road, Southwark, and extending also at the rear of No. 177 (Mr. A. C. Russell for the Sons of Temperance Friendly Benefit Society).—Consent.

Formation of Streets.

Woolwich.—A deviation from the plans sanctioned for the formation of new streets upon the Eltham-park estate, High-street, Eltham, so far as relates to the formation of Glenesk-road, Berry-hill-road, Elibank-road, and Crookston-road, Eltham (Mr. R. Stewart for Mr. A. Cameron Corbett, M.P.).—Consent.

Poplar.—That the Council do accede to the request of Mr. F. E. Duckham for the Millwall Dock Company, for permission to abandon the formation of new streets, approved on June 16, 1882.—Agreed.

Deviation from Certified Plans.

Holborn.—Certain deviations from the plans certified by the district surveyor, under section 43 of the Act, so far as relates to the re-erection of No. 16, Ormond-yard, Queen's-square, Holborn (Mr. T. Wilson for Mr. W. C. Gidden).—Consent.

Dwelling houses on Low-lying Land.

Greenwich.—That a licence be granted to the Delta Metal Company, Ltd., for the erection of foremen's cottages, manager's house, office, etc., on low-lying land situated at the proposed works of the company in Blackwall-lane, East Greenwich.—Agreed.

The recommendations marked † are contrary to the views of the local authority.

ARCHITECTURAL SOCIETIES.

MANCHESTER SOCIETY OF ARCHITECTS.—At the annual general meeting of the members of this Society, held on the 28th ult., the following officers and members of Council were elected:—President, Mr. J. W. Beaumont, F.R.I.B.A.; Vice-presidents, Messrs. W. A. Royle, F.R.I.B.A., and John Eaton, C.B., F.R.I.B.A.; Hon. Secretary and Treasurer, Mr. Paul Ogden, F.R.I.B.A.; Assistant Hon. Secretary, George Brown. Members of Council: Fellows, Messrs. S. H. Capper, M.A., A.R.I.B.A., R.C.A., John Ely, F.R.I.B.A., Edward Hewitt, F.R.I.B.A., Jesse Horsfall, F.R.I.B.A., A. H. Mills, A.R.I.B.A., J. D. Mould, F.R.I.B.A., Isaac Taylor, John H. Woodhouse, F.R.I.B.A., and P. S. Worthington, M.A., A.R.I.B.A.; Associates, Messrs. A. E. Corbett, A.R.I.B.A., J. H. Gibbons, A.R.I.B.A., and Godfrey Collcs.

THE SANITARY INSTITUTE:

ANNUAL DINNER.

THE annual dinner of the Sanitary Institute was held on Monday in the Whitehall Rooms, Hotel Métropole, Dr. R. Farquharson, LL.D., M.P., Vice-President, presiding. There were also present Sir J. Ure Primrose (Lord Provost of Glasgow), Sir William Church, Bart., K.C.B. (President of the Royal College of Physicians), Sir R. Douglas Powell, Bart., Sir Francis S. Powell, Bart., M.P. (Vice-President), Sir R. M. Hensley, J.P. (Chairman of the Metropolitan Asylums Board), Lt.-Col. A. S. Jones, V.C., Professor A. Bostock Hill, Professor J. Tweedy (President of Royal College of Surgeons), Professor H. R. Kenwood, Professor A. Macfadyen, Professor H. Robinson, Dr. J. F. J. Sykes, Professor G. Sims Woodhead, Dr. E. Klein, F. R. S., Dr. W. Collingridge, Dr. Andrew Clark (Chairman of Council of the British Medical Association), Dr. J. Groves, Dr. S. Rideal, Dr. Louis C. Parkes, and Messrs. W. Whitaker, F.R.S. (Chairman of Council of the Institute), Maurice Fitzmaurice, C.M.G., A. H. Reid, A. Wynter Blyth, Shirley Murphy, W. Hills, W. D. Scott-Moncrieff (President of Association of Sewage Works' Managers), T. W. Aldwinckle, H. H. Collins, T. W. Cutler (Treasurer), H. D. Searles Wood, A. Saxon Snell, H. Tanner, J. Osborne Smith, F. H. A. Hardcastle, A. Ritchie, E. C. C. Tidman, Isaac Young (Chairman of Council of Sanitary Inspectors' Association), E. White Wallis (Secretary), and others.

The loyal toasts having been suitably honoured (the Chairman alluding in feeling terms to the loss the Institute had sustained during the past year by the death of the Duke of Cambridge, who for twenty-two years was a member of the Institute and for eight years its President),

Sir R. M. Hensley, J.P., proposed "The Navy, Army, and Auxiliary Forces," coupled with the name of Lt.-Col. R. H. Firth, R.A.M.C., who responded.

Sir R. Douglas Powell, Bart., then proposed "The Houses of Parliament."

Sir Francis Sharp Powell, Bart., who responded, said that the aims and the ambitions of the Institute were the aims and ambitions of the House of Commons. Much had been done during the last half century by legislation to improve the physical condition of the people, and so much had been accomplished that the time had come when the local administration of the laws of health was in arrear of the enactments of the Legislature. The time had come when Parliament might look back with some satisfaction upon the work which had been accomplished. There was a marked diminution of the number of houses consisting of one tenement only, and that improvement meant a change in the condition of the people beyond calculation; and there was also a most gratifying increase in the houses built under more sanitary conditions. He believed that in many of our towns the housing problem was almost solved, and there had been a marvellous increase in the number of houses built in towns in close proximity to the railways. This market not only a growth in population, but it indicated that there had been a migration from bad houses to good. Parliament might legislate and local authorities might administer, but the final stage was that every man must, if he might say so, "clean his own doorstep," and one of the most important things to be done was to send sanitary missioners from house to house to teach people their duty and how they could best procure their comfort, happiness, and sobriety. It was by the education of the people that this domestic reform could be made possible. It was useless to build houses and streets unless they were well used by those for whose benefit they were intended. There was a Bill now being matured by Government officials to consolidate the public health laws in England and Wales so that the laws might be easily administered so far as that was possible with so complicated a problem. As to our rivers, he had introduced the Purification of Rivers Bill year after year, and now the whole external opposition to it had disappeared, and it appeared on the notice paper on the House of Commons without a single objector.

The Lord Provost of Glasgow, in proposing "The Sanitary Institute in Great Britain and the Colonies," said it was difficult to realise how, twenty-five years ago even, sanitary matters were neglected and disregarded. From the cottage to the palace every element that contributed to the life and happiness of the household seemed to be considered except the very elementary and necessary condition of sanitation. Even the hosiptals showed, in major operations, a death roll of 37 per cent.; but thanks to wise sanitary administration and under the antiseptic treatment of Lister, that rate had been reduced to about 2 per cent. Their work, founded in approbrium almost—for even scientific and educated men scouted the idea of sanitary progress becoming a gospel—was now bearing fruit, and they were thankful that the Institute had become a potent force in our midst. The duty of municipalities towards an Institute like this should be one of loyal support, for when he found that the Institute sent out year after year so many trained intellects to aid the municipalities he felt that the debt of those municipalities was a real one. During last year 18,000 individuals had listened to the instruction given by the Institute, and many of them had taken diplomas and had gone out to help in the cause of sanitation. The municipalities should devote themselves to making life happier, healthier, and better, and should attack the problems associated with dirt, disease, and death, and provide the remedies that would minimise these adverse forces. They should devote themselves to such matters, and should neglect those things which could be done very well without them. When the Institute visited Glasgow in July, he hoped they would see some works that would prove instructive. As to the purification of rivers, the Institute would see how a filthy ditch had been transformed into a tolerable river, for a fortnight before the visit the Corporation of Glasgow would open their great sewage works.

The Chairman, in response, said that they had an admirable secretary and officials, and that during the past year the Institute had held forty or fifty meetings, which had been attended by 18,000 people. The increase in the work of the Institute made it necessary that they should obtain a new and larger home, and, now that the London County Council had become the educational authority for London, it would be a great opportunity for them to recognise the value of practical teaching in connexion with the public health

of London by affording the Institute facilities for the establishment of a teaching school of hygiene worthy of the great metropolis.

Mr. A. H. Reid, Chairman of the Board of Examiners for British South Africa, also replied. After many years' service as a municipal engineer and as a city councillor of Johannesburg and Cape Town, he was of opinion that the chief need in South Africa was a common sense of decency and hygiene, especially among the coloured and lower classes, a loyal submission to the authorities who were appointed to administer their sanitary affairs, and a more efficient supervision of suburban and country areas to prevent the spread of disease between the larger centres of population and those areas. He was strongly of opinion that to the inefficient cleansing and sanitary administration of the Cape Government railway stations, passenger carriages, and goods trucks must be attributed to a great extent the spread of tuberculosis. Another serious cause of preventible disease was overcrowding in the dwellings of the working and coloured classes and deficient observance of the necessity for light, air, and cleanliness on the part of that section of the heterogenous community, and some of the chief causes of this overcrowding was the high rentals of houses. As to what was being done in South Africa in the matter of sanitation, the Corporation of the City of Cape Town had voted the sum of 300*l.* per annum for two years as a contribution to the funds of the examining body of the Institute for the purpose of providing lectures in elementary science, physics, etc., to young colonists who desired to obtain the Institute's diplomas for the offices of sanitary inspectors, etc. Last October the first examination was held in Cape Town, and nineteen candidates presented themselves, nine of whom passed, and in March an examination was held in Durban. They were considering the necessity of holding local examinations in Johannesburg, Bloemfontein, Bulawayo, and other capital centres, but they experienced difficulty in the matter of training and educating candidates in other centres than Cape Town and Durban, as they (with the exception of part of Port Elizabeth) were the only towns in South Africa that had a complete modern system of water carriage sewers and ample water supplies. In conclusion, he referred to the excellent work of the Secretary of the Board of Examiners in South Africa, Dr. Jasper Anderson.

Mr. W. Whitaker, F.R.S., also replied. Some of the meetings of the Institute in the provinces were better attended than the London meetings. As to the meeting in Glasgow this year, there would be a very complete exhibition. Mr. Whitaker referred to the large amount of work carried out by the Council of the Institute and of the committees, and by the Secretary, Mr. Wallis, the Board of Examiners, and others.

On the motion of Sir J. Ure Primrose, a vote of thanks was passed to the Chairman, who replied, and the proceedings terminated.

ENGINEERING SOCIETIES.

THE JUNIOR INSTITUTION OF ENGINEERS.—A visit of this Institution took place on April 29 to the Cassland-road Higher Grade Board School, Hackney, to inspect the heating and ventilating systems installed there. A noticeable feature was the process of filtration at the air supply or main intake. A special device in the form of two large drums slowly revolving, on the peripheries of which is laced a layer of fibrous matting, is provided for this purpose. The drums revolve in water, and offer to the impinging air a continuously saturated surface. The friction caused by the fibrous matting through the water, and the water disturbance associated with it, causes the fibres to release the dust, smuts, etc., gathered, and all the sediment thus trapped is passed through the waste pipe to the drain. After being dealt with in this matter the whole of the air passes through two disc fans driven by an electric motor of 17 B.H.P. The duty of these fans represents the propulsion of something like twenty tons of air into the building per hour, and a commendable and striking characteristic is the general freedom from draughts. To warm this enormous mass of air a Cornish boiler is employed, generating steam at low pressure and feeding a series of heating batteries distributed at the bases of the rising flues to each room, and which were noticed in the main air duct. Condensation is all returned to the boiler, but the level of the ground prevents this being done by gravity, and consequently an automatic pump and receiver is in circuit with the heating mains. The heating batteries are each fitted with a local valve, so that, if need be, any of them can be shut out of supply without in any way affecting the other portions. All the batteries consist of gill pipes, and the bolt flanges are all faced and the joints made of asbestos rings. It was noticed that the batteries were complete with dampers or sliding shutters, the object being to give full control over the temperature. By raising or lowering the shutters the air flowing up the flues may be warmed to the maximum degree, or all cold air may be sent forward, or half warm and half cold, or any intermediate mixture of each, without curtailing the actual volume of air. The control of the temperature rests with the caretaker, and he may perform what is required of him without leaving the basement. In distributing the heating batteries at each vertical flue, the concentrated form of heater is avoided, and there is no necessity to heat the air to a high temperature as is requisite in order to make good losses in transmission, where a large heating battery is placed at the intake. As a result, the air in these schools retains its freshness and invigorating qualities. Actual tests of the air in the school-rooms by the Medical Officer to the Board showed an average of only six parts CO_2 in 10,000 volumes. The average change of air is about eleven times per hour. Messrs. Stott and Co. fitted the installation.

SOCIETY OF ENGINEERS.—The Jubilee Meeting of the Society of Engineers was held at the Royal United Service Institution, Whitehall, on Monday evening, Mr. D. B. Butler, President, in the chair. The proceedings were commenced by the reading of a "Jubilee Retrospect," being a brief history of the Society from its inception to the present time, by Mr. Perry F. Nursey, Past President and Secretary. After referring to his election as a member of the Society in 1858, four years after its inauguration, and to the fact that in one capacity or another, honorary or otherwise, including that of President, he had worked for it without a break ever since he was elected, Mr. Nursey proceeded to point out that although the Society was established in 1854, it was not then known by its present name. For the first three years of its existence, it was called the Putney Club, having been founded by students of Putney College, an institution which formerly existed for the education of engineers. The founders were Robert Monro Christie, Henry Palfrey Stephenson, and Alfred Williams, the latter of whom held the office of Honorary Secretary and Treasurer to the day of his death in 1894. The members used at first to meet periodically at the offices of Mr. Christie and Mr. Stephenson, when various points of engineering practice were introduced and discussed, on the lines of the topical discussion system, now so largely in vogue in the United States, and which was successfully adopted upon one occasion last year by the Society. In 1855, however, the formal reading and discussion of papers was commenced. In course of time a set of twenty-four rules was framed, and out of these from time to time have been evolved the comprehensive rules and by-laws by which the Society is now governed. At the Annual Meeting of the members of the Putney Club, held on December 7, 1857, Mr. Nursey stated that the Society was re-christened by its present name, "The Society of Engineers." At that date the number of members had increased to fifty-four from twenty-five, which latter was its strength at the close of 1855. This increase of numbers necessitated a larger meeting room, and No. 4 Committee-room in Exeter Hall was taken for that purpose. In course of time the Committee-room proved too small, and the Lower Hall was engaged for the meetings, which were held there for some years. A prominent feature of the year's work in 1858 was the awarding, for the first time, premiums of books for papers read during the year, the first recipients being Mr. James Amos for a paper on "The New Hydraulic Lift of the Thames Graving Dock," and Mr. John Glynn, jun., for a paper on "Dr. Clarke's Water Softening Process." The year 1861 was marked by the holding of a conversazione in the lower hall, Exeter Hall, on June 11, which function was successfully repeated in 1863. The latter year marks the introduction by Mr. Williams of vacation visits to works of engineering interest, the first visit being to the Southern Outfall of the Main Drainage Works. Later on in the year the Northern Outfall was visited. The year 1863 witnessed the institution of the class of honorary members, although none were elected until 1865. Amongst the earliest honorary members were Lord Playfair, Sir William Fairbairn, Sir John Herschel, Sir Joseph Whitworth, Dr. Percy, and Professor Macquorn Rankine. In 1864 the question of issuing certificates of membership was discussed, but their issue was not then considered desirable. They were, however, adopted in 1867 in their present form. Coming to later times, Mr. Nursey observed that the year 1900 merited notice as being that in which the present honorary secretary and treasurer, Mr. George Burt, presented the Society with the handsome badge of office in gold and enamel worn by each successive President.—A paper was subsequently read on "British and American Coal-cutting Machines," by Mr. A. S. E. Ackermann. The author gave a brief history of coal-cutting machines showing that the credit of the invention of each of the well-known types of machines was due to Englishmen, although it has been left to Americans to perfect most of the types and make large use of them. The chief types of machines in use in Great Britain are the longwall disc machine and the longwall bar machine, which were described. It was stated that the average net saving on the cost of coal getting in England as the result of the use of machines was 6d. per ton, and that the average increase of output per man employed had amounted to 65 per cent. In addition to those advantages, coal got by machinery contained 12 per cent. more round coal. The cost of a complete plant was stated to be about 1,000*l.* per machine; the individual electric longwall machines cost about 400*l.* each; the pneumatic ones 250*l.*; and the pneumatic percussive, 75*l.* to 100*l.* each. The leading three types of American machines—viz., the punching, the chain breast, and the chain cutter longwall—were also described, as well as the method of using them. The author observed that American experience was that, on the average, 10d. per ton was saved in the cost of getting by the use of machines. The chief advantages to be gained by the employment of machines were:—(1) The saving in the cost of getting; (2) the larger yield from a given number of entries; (3) the rapidity with which the working face is carried forward; (4) the increase of the percentage of lump coal; (5) the smoother floor made by the chain and disc cutters, resulting in greater ease with which the coal can be shovelled up and loaded; (6) the reduction in the accidental death-rate per million tons of coal raised; and (7) in the case of pneumatic machines, the discharge of fresh cool air at the working face. The statistics of coal-mining were very thoroughly dealt with by the author, a number of tables and a large set of curves accompanying the paper. These curves showed at a glance the present state of affairs and the past history of each item, and corresponding curves were shown for Great Britain and America. The output per machine per year in America was stated to be 11,480 tons, and in England 8,620 tons; both of these quantities being smaller than they were several years ago. According to Mr. Ackermann, the favourite type of machine in England is the longwall disc machine, 82 per cent. of all the machines being of that type. In America the punching machine was the favourite, 59 per cent. of the machines being of that type. In 1902 there were 483 machines in use in England, and 5,418 in America. In England in the same year 1·83 per cent. of the coal was cut by machines, and in America 23·5 per cent., or, if in the latter case only bituminous coal were considered, then 26·75 per cent. was cut by machines.

THE SANITARY INSTITUTE.—One of the special features of the Health Exhibition of the Sanitary Institute at Glasgow, in July next, will be a municipal exhibit, arranged by the different departments of the Glasgow Corporation. The Cleansing Department propose to arrange for, amongst other things, exhibits of a model up-to-date destructor and the Globe fertiliser, the Gas and Electric Departments the latest developments in illumination, and the Sewage Departments what they can produce from what were formerly waste products. The other departments of the Corporation will also be well represented with their different interests, illustrating the progress that has been made in municipal enterprise by the Glasgow Corporation. The social and holiday aspect of the Congress has not been overlooked, and excursions have been arranged to Loch Lomond, the Trossachs, and the Falls of Clyde, and other places of interest.

THE COURT OF COMMON COUNCIL.

THE usual fortnightly meeting of the Court of Common Council was held at the Guildhall, under the chairmanship of the Lord Mayor, on Thursday last week.

Improvements.—The Improvements Committee reported relative to the improvement of Lower Thames-street and recommended that the surplus land between Pudding-lane and Botolph-lane be let on building lease by public auction. With regard to the improvement of St. Mary Axe, they reported having arranged for renting the corner of the premises No. 5, St. Mary Axe, and the acquisition of a leasehold interest in a portion of the open area in front of 32, St. Mary Axe. They also submitted for adoption an arrangement for acquiring the leasehold interest in 12, Mansell-street, and, further, an arrangement for acquiring the freehold interest of the Governors of St. Bartholomew's Hospital in the ground needed to widen the public way in front of 24-28, Knightrider-street, at a cost of 1,800*l.* Further, they reported on the pulling down of the following premises:—St. Alban's-court, Wood-street; 136, Fenchurch-street; 25 and 26, Cullum-street; 21, 22, and 23, Ironmonger-lane; 9, Huggin-lane; 2 and 4, Arthur-street West, and 24 and 25, St. Martin's-lane. In neither of these cases did the Committee consider it expedient to take any steps to effect improvements at these places. All the recommendations were adopted.

Paving Contracts.—A lengthy report was submitted by the Streets Committee recommending that the contracts with the Val de Travers Asphalte Co. for maintaining the pavements of a large number of streets be extended for a period of ten years. The prices varied for different groups of streets, and were from 1s. per yard super. per annum to 3r. per yard super. per annum. There were similar recommendations regarding the extension of the contracts with the Limmer Asphalte Co. and with the French Asphalte Co. It was also recommended that the contracts with the Improved Wood Pavement Co. for maintaining the carriageway pavements of the undermentioned streets be extended as follows:—For Ludgate Hill for fifteen years at 1s. 6d. per yard super. per annum, subject to the right of the Corporation to terminate the arrangement at the end of five or ten years; for Queen Victoria-street, Eastcheap, and Cannon-street for fifteen years at 1s. per yard super. per annum. Several members took exception to the length of the period of the contracts, and it was agreed that the matter stand over until the next meeting.

City Clocks.—Mr. Deputy Miller Wilkinson moved "that the regulations as to synchronising with Greenwich time be applied to existing as well as future clocks erected in the City over the public ways." Mr. Deputy White, who opposed the motion, said that the clock of St. Swithin's, Cannon-street, had kept correct time for 210 years without being synchronised. The motion was referred to the Streets Committee.

XIIIth Century Manuscript.—The Lord Mayor had before the Court an application from the hon. secretary of a special loan exhibition to be held by the Worshipful Company of Musicians for the loan of a XIIIth century manuscript preserved among the records of the Corporation. The application was referred to the Library Committee.

Thames Barrage Scheme.—Mr. Alderman Alliston presented a report from the Special Committee, relative to the scheme for the barrage of the River Thames, recommending that the Board of Trade be asked to hold a public inquiry as to the said scheme, and that it be referred back to the Committee to approach the Board by deputation for the purpose of urging upon the Board the necessity for holding such an inquiry, and that the Committee be also empowered to co-operate with other public bodies on the subject. The report was adopted unanimously.

THE HELLENIC SOCIETY.—The inaugural meeting of the Hellenic Society was held on June 16, 1879, and the Council have decided to celebrate the Twenty-fifth Anniversary in the coming summer, by holding a special meeting in the rooms of the Society of Antiquaries in Burlington House, Piccadilly, on Tuesday, July 5, at 3 p.m. The President, Sir Richard Jebb, will deliver an address, and it is hoped that short papers or addresses may be delivered by two or three of the Foreign Honorary members who may be present on the occasion. A short history of the Society from its foundation will be prepared by the Honorary Secretary, and will be published in the journal. It is hoped that as many members as possible will attend.

LONDON TRAFFIC COMMISSION.

At the sitting of this Commission on Thursday last week evidence was given by Mr. Granville C. Cuningham, the General Manager of the Central London Railway. In the course of his evidence he suggested the construction of an "elongated double track loop" of tube railway, about six or seven miles in length, taking a breadth of from half a mile to a mile, round which trains could run in both directions all day long. Such a loop would be formed by the extension, as was proposed, of the Central London Railway to Liverpool-street, thence back to the Strand, Piccadilly, Knightsbridge-road, Hammersmith, and so to Shepherd's Bush. In connexion with such a loop other loops might come in from various quarters. Each loop should be complete, however, and should not have any physical connexion with the others, but communication should be obtained by an exchange station. In some instances a double line, running in and reversing, as the present Central London, would be sufficient.

Mr. James Devonshire, the Managing Director of the Metropolitan Electric Tramways Ltd., gave evidence at some length on behalf of that company. After describing the various undertakings owned by that company, he proceeded to deal with the disadvantages which would be likely to arise from the operation of the 43rd section of the Tramways Act of 1870, and mentioned several cases where the enforcing of the powers of compulsory purchase would be likely to lead to complications owing to one pair of the tram-rails being in one county and the other in another.

On Friday Mr. H. Montague Bates, Chief Clerk of the Public Health Department of the Corporation of London, submitted some statistics of the traffic in the City streets. Among the tables submitted by the witness were two which showed the number of persons who cross by the roadway the open space in front of the Mansion House and the number who use the subways at the same spot. The observations from which the figures were derived were made on two Thursdays in 1903—one, the day on which the subways were watched, in March, and the other in April. As the weather on both occasions was recorded in the tables as "fine," the days were apparently looked upon as exhibiting identical conditions. The hours of observation on each occasion were from 6 a.m. until 12.30 a.m. It was found that, whereas 61,185 persons crossed by means of the subways, 248,015 preferred to cross the carriageway. In the course of his evidence Mr. Bates said that the sum expended out of the rates on street improvements in the City had amounted since the year 1848 to nearly 3,000,000*l.*; that was the sum which remained after deducting the amount realised from sales of surplus land and the contributions made by the London County Council and the old Metropolitan Board of Works. The average annual cost of paving the City streets had increased from 22,806*l.* for the ten years ending 1850 to 38,043*l.* for the ten years ending 1900.

Mr. Joseph Douglass Mathews, F.R.I.B.A., F.S.I., was then called. He said that he was a member of the Corporation of London and Deputy of Dowgate Ward, and was well acquainted with the City geographically and the special business carried on in its several localities. The many changes that had taken place during fifty years in the conduct of trade, and by the formation of new and improved streets, had brought about an enormous increase in both the foot and vehicular traffic in the City proper. Formerly all manufactured goods not produced in London were sent in bulk for the provinces and foreign countries to agents, where the goods were sold and distributed to retailers. Almost all the goods imported or exported were from the wharves and quays on the river, or at the various docks. Manufactories were situated in the City or its immediate neighbourhood. Now much of the manufactured goods was sold by sample, and sent direct from the manufactories to the retailers. Year by year the manufactories were being removed to the suburbs or the country. The increased accommodation in the docks caused a large addition to the heavy traffic, and this was further augmented by the number of omnibuses which crowd the main thoroughfares. Those circumstances pointed to the necessity of relieving the centre of the City as much as possible. What was wanted was more direct communication from east to west, and from north to south. The greater part of the traffic from south to north and north-east passed over London Bridge. Southwark Bridge was convenient for the manufactories in Southwark, but the steep approach from Upper Thames-street was very inconvenient. More than twenty years ago he advocated the formation of a spur street from the crown of Southwark Bridge carried over Upper Thames-street by a viaduct. The street would then be continued in a westerly direction to Queen Victoria-street at or about the end of Bread-street. By widening Bread-street on one side the traffic could turn off in an easterly or westerly direction through Queen Victoria-street, Cannon-street, and Cheapside. The street could be continued northward by widening Wood-street, or by forming a new street somewhat to the west, to Old-street, and thence to Islington. At the southern end the road would be continued by Southwark Bridge-road and thence to the various parts of South London. Witness went on to deal with the traffic from west to east, and said that any attempt to widen Cheapside would be considered vandalism. He suggested the formation of a new street commencing in Smithfield, and passing immediately on the south side of St. Bartholomew's Church, and through some of the smallest and least valuable property to Aldersgate-street. The street would then be continued by widening Jewin-crescent. The portion of that street from Smithfield to St. Giles' Church had been under the consideration of the Corporation for some time. The cost was estimated at about 850,000*l.*, and with the additional land on the north side at 1,225,000*l.* The cost was the stumbling block, and the undertaking would be too great unless the L.C.C. would contribute largely. In the course of further evidence the witness said that a regular service of trains would be a great convenience for persons travelling from the North and Midlands to the South of England, and would save driving through the streets.

METROPOLITAN ASYLUM BOARD.

THE usual fortnightly meeting of this Board was held on Saturday last week at the offices, Victoria Embankment, Sir R. Hensley in the chair.

On the recommendation of the Finance Committee it was agreed to apply to the Local Government Board for orders sanctioning the expenditure of the following sums:—15,900*l.* on the part adaptation of the buildings at Belmont Asylum for the accommodation of male unimprovable imbeciles, and on drainage work; 280*l.* on the provision of bath-room, etc., in the female staff quarters of Caterham Asylum; and 320*l.* on the installation of telephones and fire-alarms at Levesden Asylum.

North Western Hospital.—The Hospital's Committee reported the receipt of a letter from the London County Council stating that before they could renew the licence for the ten temporary wards and the temporary chapel at the hospital, certain fire-resisting works would have to be carried out. On the recommendation of the Committee it was agreed to carry out the suggested works. The estimated cost is 4,500*l.*

Belmont Asylum.—On the recommendation of the Works Committee Messrs. R. L. Curtis and Sons were appointed to take out the quantities of the alterations, etc., to be carried out at this asylum.

Darenth Asylum.—On the recommendation of the Asylum Committee it was agreed to refer the matter of the re-modelling of the fire-alarm system at this asylum to the Works Committee. The Committee reported having considered the re-arrangement of the accommodation for the principal officers at the asylum, and the Works Committee, were, on the recommendation of the Committee, instructed to arrange for alterations as follows:—

(i.) The rooms above the medical superintendent's house in the adult department, at present occupied by servants of the asylum, to form part of the house, a partition wall being erected to cut them off from the rest of the administrative block, and an internal staircase being provided to give access to them from inside the medical superintendent's house.

(ii.) The quarters in the adult department, at present occupied by the steward, to be allocated to the matron, with the exception of two rooms (the steward's dining-room and kitchen) which will be used as offices, certain alterations to the dividing wall and doorway being necessary to cut off these two rooms from the remainder.

(iii.) The house in the children's department formerly occupied by the medical superintendent of the schools to be allocated to the chaplain.

(iv.) The quarters in the children's department formerly occupied by the assistant steward to be allocated to the steward, together with the room formerly used as the clerk's office.

Tooting Bec Asylum.—An increase of 475*l.* in the estimate of cost of the tar-paving of the paths and airing courts was sanctioned.

COMPETITIONS.

THE NEW WESLEYAN CHURCH HOUSE.—Mr. R. W. Perks states that the trustees of the Wesleyan Million Fund are making the following arrangements for the erection of the Wesleyan Methodist Hall and Connexional Offices at Westminster:—The trustees propose to invite architects to submit preliminary sketches or designs for the buildings to be erected on the corner site fronting Princes-street and Tothill-street. The buildings will cover an area of about 35,000 sq. ft. The conditions under which architects will be invited to send in preliminary sketches with a view to a subsequent limited competition among selected architects will be settled by the trustees in consultation with Mr. Aston Webb, their architectural adviser. The Wesleyan Conference has instructed that the buildings shall be of a monumental character and worthy of the position they will occupy. The amount proposed to be expended on the buildings, irrespective of land, is 120,000*l.*

FREE LIBRARY AND PUBLIC OFFICES, ILKLEY.—The result of the competition for this building was announced as follows at a meeting of the Council on the 4th inst.:—First, 100*l.*, to be merged in the commission for the work, Mr. W. Bakewell, F.R.I.B.A., Park-square, Leeds; second, 50*l.*, Mr. R. T. Longden, Morland-road, Burslem; third, 20*l.*, Messrs. S. Warwick, A.R.I.B.A., and H. A. Hall (joint architects), 98, Lancaster-road, London. The cost is not to exceed 10,053*l.* Mr. G. B. Bulmer, F.R.I.B.A., acted as adjudicator and adviser to the Council. There were sixty sets of designs sent in.

TORQUAY MUNICIPAL BUILDINGS.—We learn that the name of the author of the second premiated design should have been given as "Messrs. Harris and Towse," not "S. Towse" only. The mistake was not ours.

Illustrations.

SOUTH WALES UNIVERSITY COLLEGE, CARDIFF.

WE give this week complete illustrations of the new building in progress for the South Wales University College at Cardiff, from the designs of Mr. W. D. Caröe, who, it will be remembered, gained the commission as the result of a limited competition last year; Mr. Belcher, Mr. Champneys, and Mr. Marshall being the other competitors.

The birds-eye view is from the drawing now hanging at the Royal Academy; the elevations and plans are from the competition drawings, and were lithographed at the time of the competition, but their publication was withheld at the time, at the request of the architect, and for a special reason. We have given the plans to a large scale, as we consider this is one of the best thought-out plans for a large and complicated building which we have seen of late years, and it is probably to this element in the design that its selection was largely due.

We take from a copy of the report sent in with the design a few notes as to the objects kept in view by the architect.

A dominating feature of the plan is the formation of two interior courts architecturally screened off from the great court. There convex angle screens provide entrances from the great court for men and women students in corresponding angles of the building, and serve entirely to conceal the respective sanitary accommodation, which is placed in almost detached circular blocks behind them, the ventilation of which is thoroughly provided for.

The Council room is arranged centrally over the main park entrance.

Under the research laboratory a cellar has been planned, not asked for in the instructions, in order to lessen vibration by deepening the foundations, and a detached concrete wall surrounds the basement, up to the surface of the ground, as a buffer against earth vibrations.

Ventilation will be by fans driven at a general inlet, propelling the air along two main ducts, one under the other, and both under the building. Radiators heated from the boilers are ranged in the upper duct. An upcast flue connected with the hot and cold ducts is carried to a point 8 ft. from the floor level in each of the rooms to be heated, a valve in the room regulating the proportion of hot to cold air introduced. Extract fans are arranged in chambers in the roof, and special fans for extracting from the fume closets in the chemical department. The opening of the windows, when desired, will not affect the ventilating arrangements.

In the architectural design harmony with the new Municipal buildings has been considered. Simplicity and reserve in form and feature have been the aim, and no costly dominating note, such as a tower or cupola, has been introduced. The elevations of the machine and testing shops have been purposely devised to suggest their engineering purpose.

Portland stone is to be used internally, except in the brick courts, and in the narrower courts and the areas white glazed bricks will be used. Where the roofs show they will be covered with Whitland Abbey or Tyrch slates; the unseen roofs will be constructed of steel and coke breeze concrete, covered with Pyramont asphalte. The type of architecture adopted allows for the free use of roofs arranged not to be externally visible, whereby external unsightliness in connection with roof lighting is avoided, and provision is thus made for fireproof roofs as well as floors. As we have already remarked, the impression given by a bird's-eye view, which shows all these roofs, is so far unfavourable, and it must be remembered that these, however obvious in the view, will not be seen in reality.

Correspondence.

THE R.I.B.A. COUNCIL ELECTION.

SIR,—A practice is arising in elections to the Council of canvassing the Institute on behalf of lists of candidates who are expected to support a particular policy or to interest themselves in one branch of the Council's work.

This practice of electing the Council upon the system of "planks" and "platforms," if allowed to prevail, may cause the qualification of candidates for the more important elements of the Council's work to be overlooked, and the effects of the employment of electioneering tactics will, in a few years, cause men of high standing to hold aloof from the conduct of the affairs of the Institute.

The responsibilities of the Council in their confidential relations with the Government and with great public bodies, upon which the growth of the influence of the Institute for the general benefit of Architecture and of the Profession depends, and the important claims of education and of its statutory and other examinations, demand qualities of professional reputation, experience and judgment which are not necessarily to be found in candidates who are the earnest advocates of one particular policy; and with deference to liberty of judgment in view of such canvassing, it is to be earnestly urged upon members to weigh carefully the very important character of the Council's duties in recording their votes in the forthcoming election.

BERESFORD PITE.

"REGISTRATION OF ARCHITECTS."

SIR,—May I be permitted to say a few words in reply to Mr. Gilbee Scott's very ingenious letter in your last issue.

It is quite true that he sent his circular to the members of the Registration Committee before that committee first sat. But he omits to add that, when it met, one of the first things it did was to pass a practically unanimous vote requesting Mr. Gilbee Scott not to issue it to the members of the Institute generally, pending the deliberations of the Registration Committee.

Unfortunately, this resolution was not officially conveyed to Mr. Scott in time for his next committee meeting, but his committee knew all about it, as Mr. Seth Smith wrote to Mr. Scott informing him of it and Mr. Cross was present at both the meetings of the Registration Committee and of the so-called "London Committee" when it was resolved to send out the circular and take a "poll," in spite of their having been requested not to do so. This is what Mr. Scott calls assisting the Council!

Another point is that Mr. Scott speaks the whole time as if the Council of the Institute had the matter in hand, whereas it is a committee specially appointed at a general meeting of members, and not the Council, which is considering the question. Of course the Council is largely represented on the Registration Committee, but the "London Committee" appear to think that the best way to expedite matters and "assist" is to largely reconstitute the Registration Committee by electing a different Council.

The one redeeming feature about the whole movement is that several members of Mr. Scott's committee resigned as soon as they found what was being done, another fact that Mr. Scott omits to mention.

As to Mr. Scott's special pleading on the question of the poll itself, he tells us that 95 per cent. of the answers were in favour of Statutory Qualification, but he omits to tell us what proportion the answers bear to the total number of circulars sent out, or how many went into the waste-paper basket. But even granting that his figures are imposing, they do not alter the fact that the Institute has appointed a committee to report on the subject, whereas the "London Committee" has appointed itself, and has taken its poll, in spite of being requested not to do so by the appointed representatives of the Institute. Mr. Gilbee Scott and the rump of his supporters may think this action justifiable, but it is doubtful if many others will agree with them; and, if he and his committee continue their mischievous career by endeavouring to obtain the return of only their special candidates at the pending election, they will "assist" in prejudicing the question, instead of helping to bring about the calm, deliberate, dispassionate, and business-like consideration of the whole subject which I feel sure is the spirit in which the vast majority of the members of the Registration Committee are considering it; at least, that is the spirit, I can answer for it, of

ONE OF THEIR NUMBER.

OLD BUILDINGS NEAR MANCHESTER.

SIR,—The Manchester Society of Architects is endeavouring to compile a complete list of all old buildings in a district, seventy miles square, surrounding Manchester, which may be worthy of the attention of architects; to include very brief notes of their character, date, and comparative importance, with a map to show their positions. Such a list should, we think, be of considerable value to architects, both to those living in the district, and also to visitors, so that we feel justified in asking for some outside assistance in the extensive work of collecting information.

We have printed a preliminary list (of which a copy is enclosed), containing slight notes on some 350 buildings, and we earnestly hope that some of your readers may be willing to co-operate with us in making the list more useful to architects; either by correcting errors in the present list, amplifying the notes (which are at present far too crude in most cases), suggesting additions, or giving photographs or reproductions of drawings of the buildings for our Library Reference Portfolio.

To anyone willing to take even a very small share in the work we shall be glad to forward a copy of the preliminary list.—For the Map Sub-Committee, ALFRED E. CORBETT.
Editor.

78, Cross-street, Manchester.

The Student's Column.

ARCHES.—XVIII.

INASMUCH as the dead load upon an arch is generally much greater than the live load, an arch designed so that the line of resistance follows the axis for the dead load and a live load across the span will usually be safe for a moving load. It is generally necessary to consider only two cases, one with a moving load over all, and the other with a moving load over one-half of the span.

If the result of a trial is to show that any line of resistance for the combined dead and live loads extends beyond the middle third of the arch ring, the thickness of the ring may be increased. A new determination need not necessarily be made, especially if the line of resistance for the dead load coincides with the axis of the arch.

When the entire load is stationary, as in an aqueduct or an arch sustaining part of a building, and when the entire load is practically stationary, as in an arch at a considerable depth below the surface of the ground or of an earthen embankment, the weight of the spandrels can be regulated so as to cause the line of resistance to follow very closely the axis of the arch ring.

In the preceding article we have already dealt with one type of arch (see Figs. 68 and 69), in which this result can readily be attained. The following method is applicable to any form of dead load:—

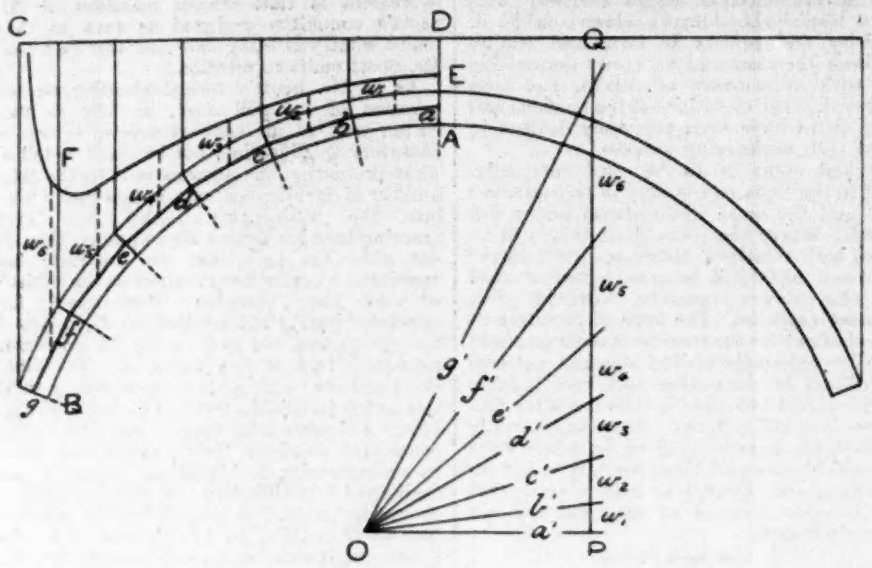


Fig 71.

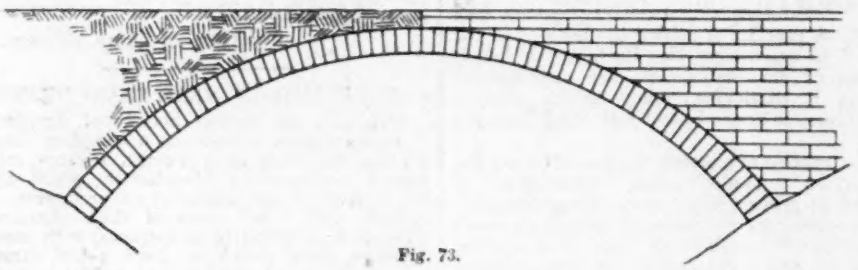


Fig. 73.

Fig. 74.

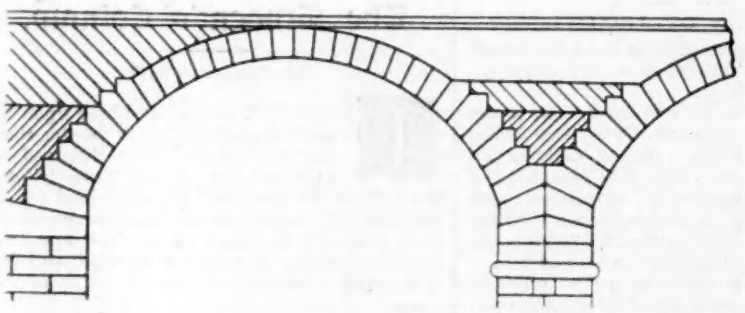


Fig. 75.

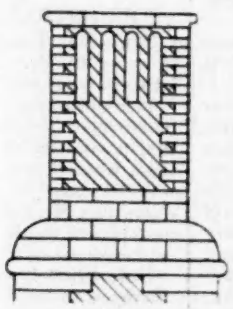


Fig. 76.

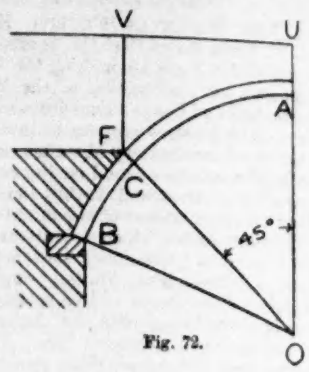


Fig. 72.

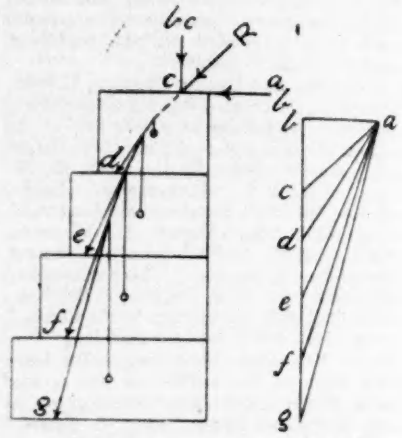


Fig. 77.

Fig. 78.

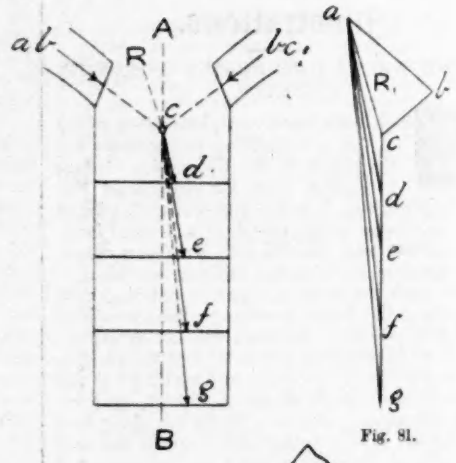


Fig. 80.

Fig. 81.

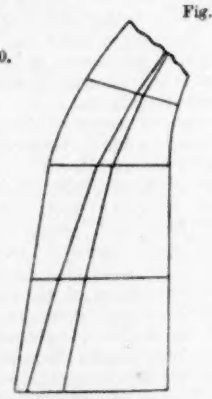


Fig. 79.

Let Fig. 71 represent an arch for which it is required to dispose the loading so that the line of resistance may coincide with the axis of the arch ring.

Considering the left hand side A B of the arch, divide the masonry ring and the load into any number of convenient parts by vertical lines, and radial lines intersecting the axis of the arch at the points *a b c d e f* and *g*. Then construct a force diagram, drawing from any point O the radiating lines a^1 b^1 c^1 d^1 e^1 f^1 g^1 parallel to the tangents of the axis of the arch ring at the points *a b c d e f g*, and draw the vertical line P Q at such distance from O that w_1 shall represent, to any convenient scale, the load on the section *a b* of the arch ring, including the weight of the voussoirs. Then the distances w_1 w_2 w_3 w_4 w_5 and w_6 on the vertical line P Q represent the required values of the loads on the several divisions of the arch.

Lay off the distances w_1 to w_6 at the centres of the respective sections vertically upwards from the centre line of the arch ring, and draw the curve E F. This represents approximately the upper limit or contour of the homogeneous load that will cause the line of resistance to pass through the centre of each joint.

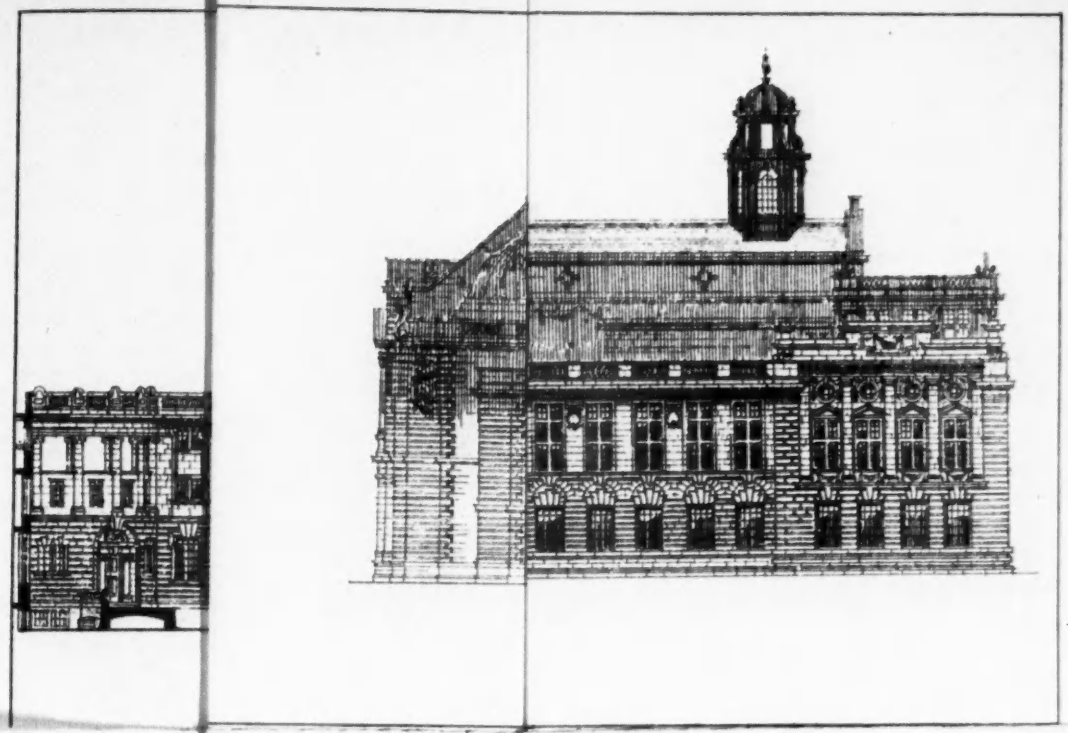
By suitable variation of the material forming the spandrel filling up to the formation level C D, and by arranging for vacant spaces as required, the actual load can be made equivalent in intensity and distribution to the reduced load indicated by the diagram, and the thickness of the arch ring can be reduced to a minimum.

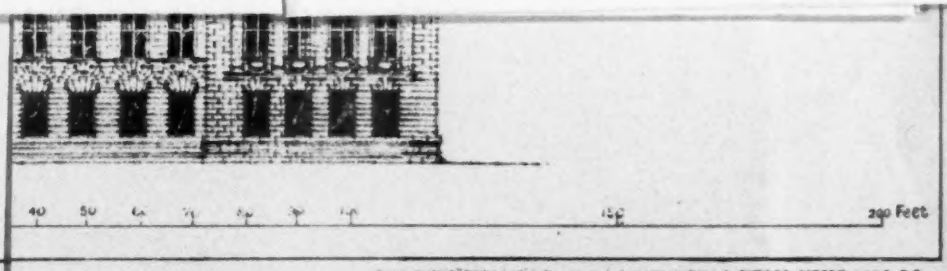
It will be observed that the distance between the load contour and the arch ring increases rapidly with the angular distance from the crown, and that the increase is particularly marked as the springing is approached. For a semi-circular arch the distance is infinite, as the reader may readily prove for himself by the construction of a diagram forming a continuation of Fig. 71. Hence it follows that it is impossible to load a circular arch beyond a certain distance from the crown, so that the line of resistance shall coincide with the axis of the arch ring.

For this reason it is usual to consider the ring to act as an arch only within an angular distance of 45 deg. on either side of the crown, and to build up heavy backing to the corresponding level. (See Fig. 62, p. 393.)

Rankine demonstrates* that the horizontal thrust is nearly equal to the weight supported between the crown and that part of the soffit

* "Civil Engineering," p. 424.





INK-PHOTO, SPRAGUE & C° L™ 4 & 5, EAST HARDING STREET, FETTER LANE, E.C.

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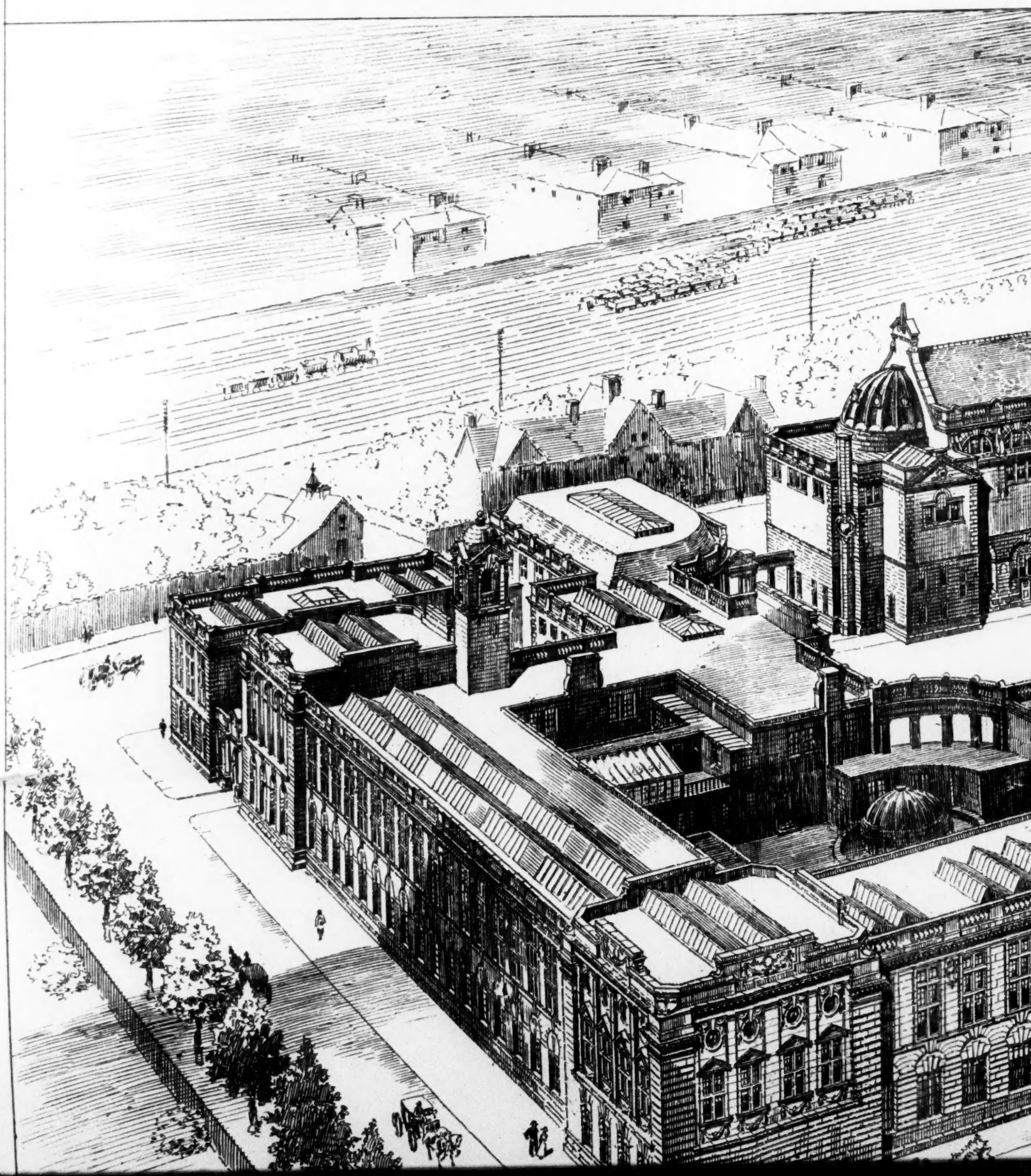
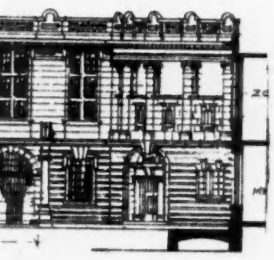
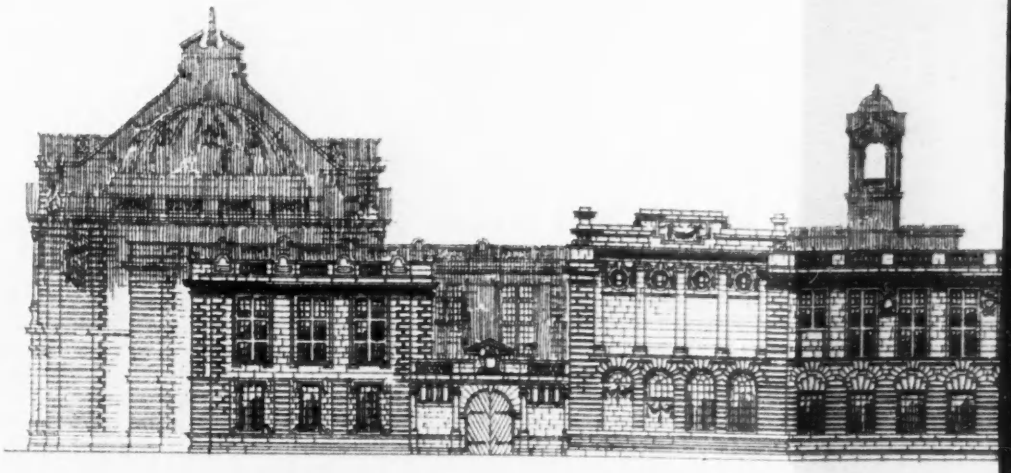
NORTH-EAST ELEVATION, TOWARDS COURT.

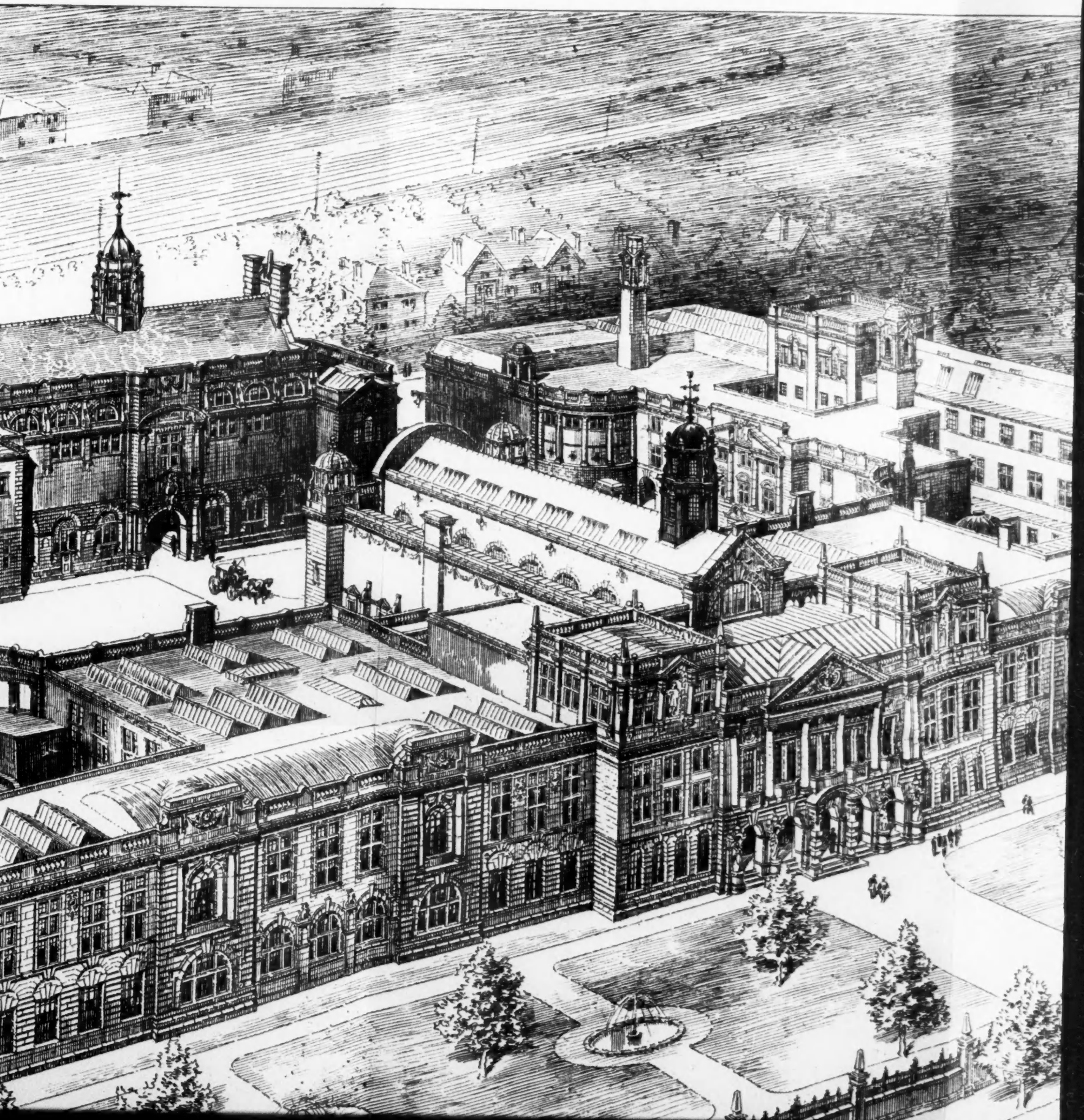


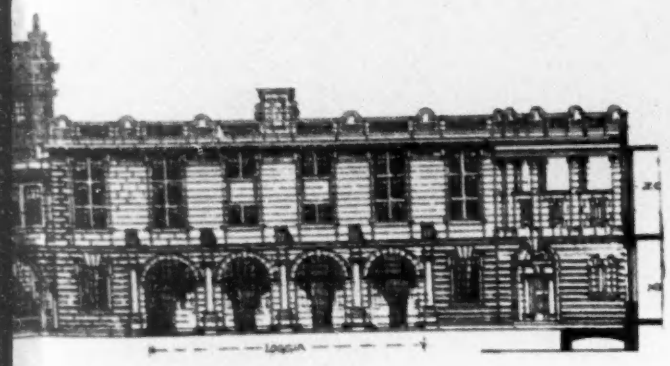


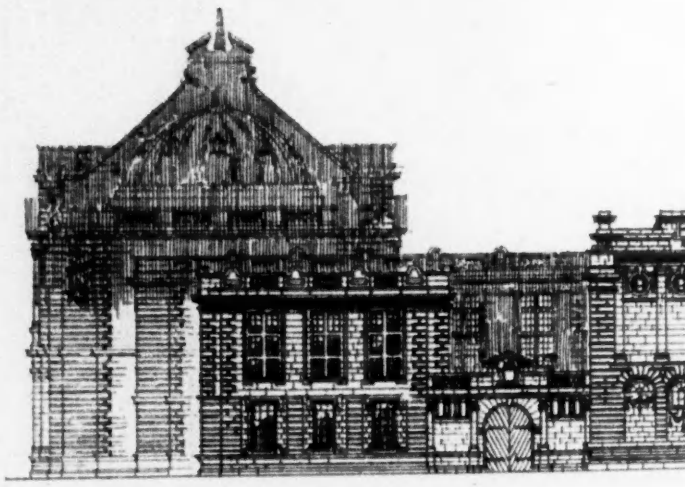


PUBLIC HEALTH

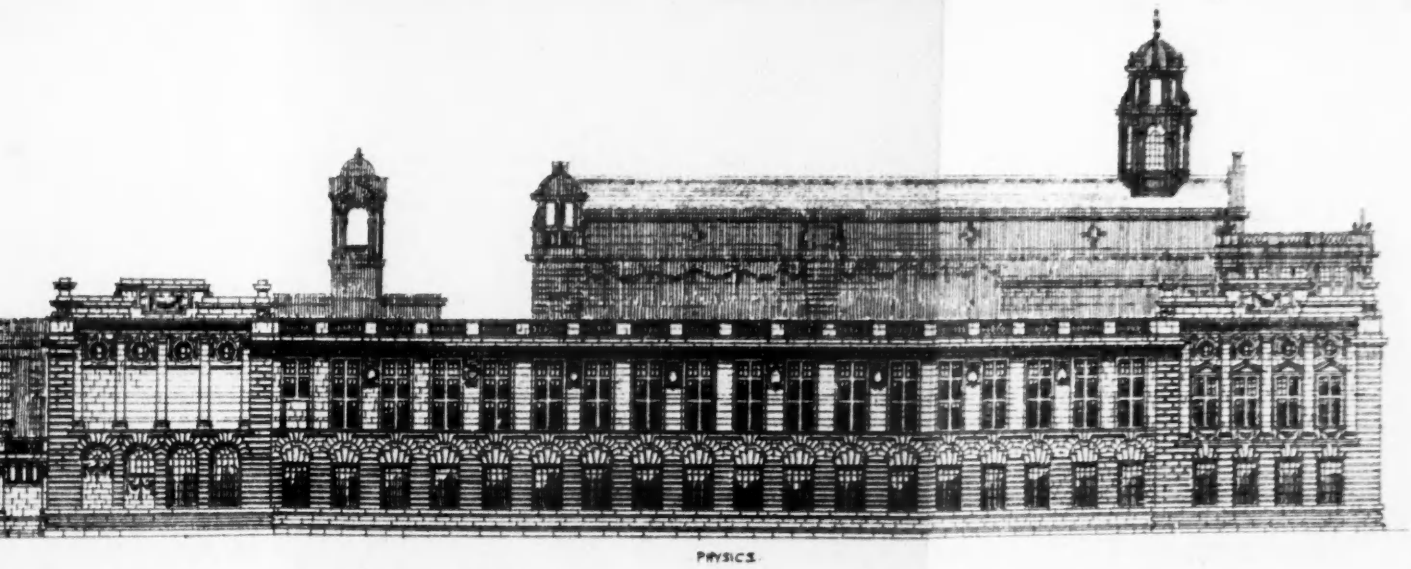
NORTH-WEST EL



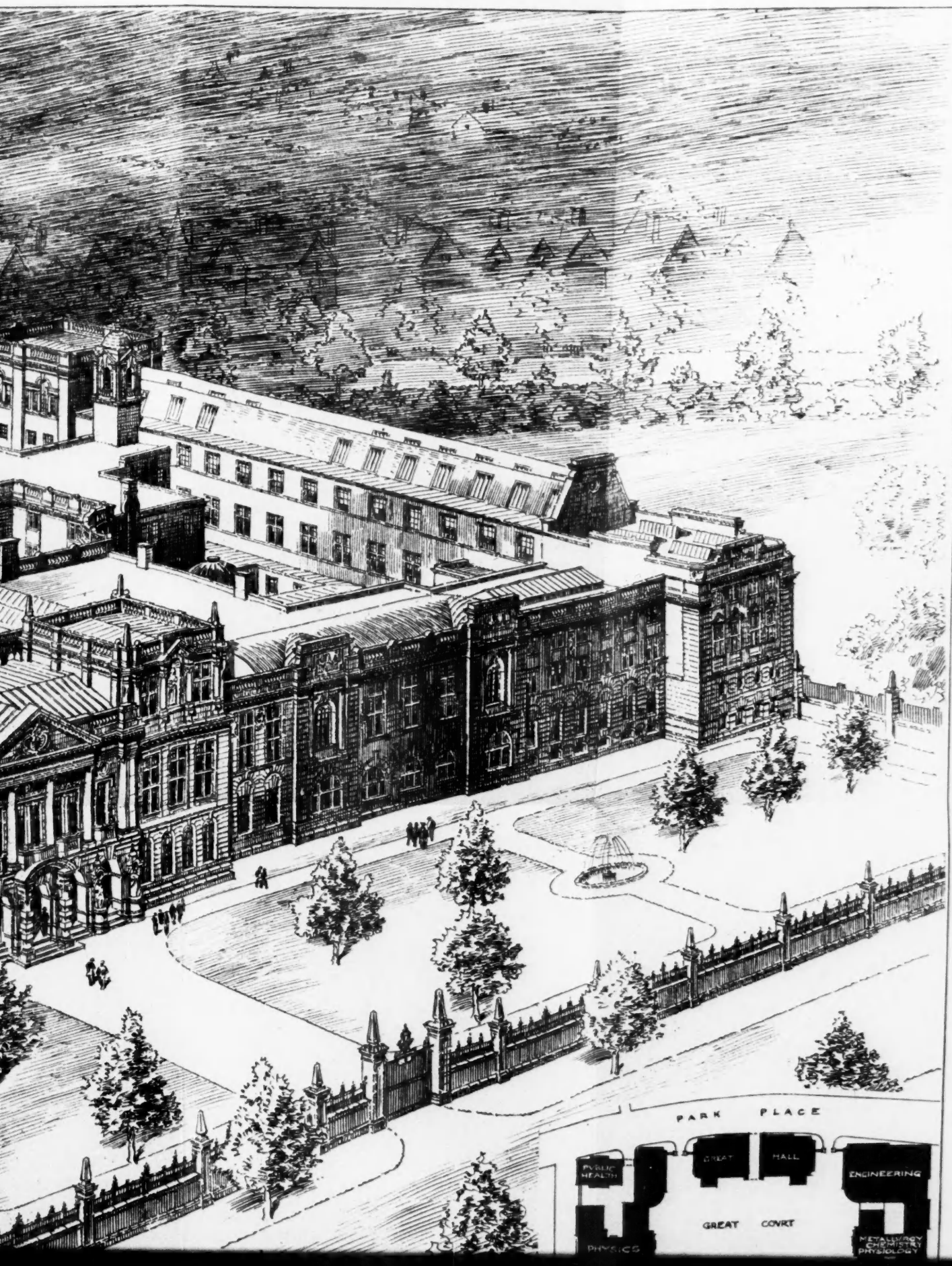


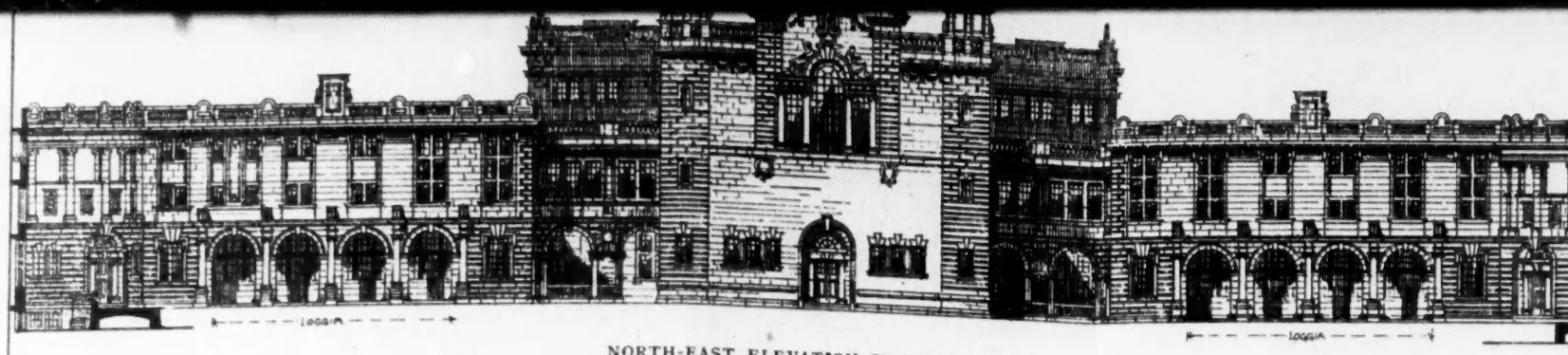


PUBLIC HEALTH



NORTH-WEST ELEVATION.



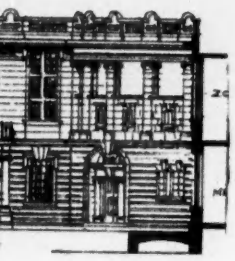


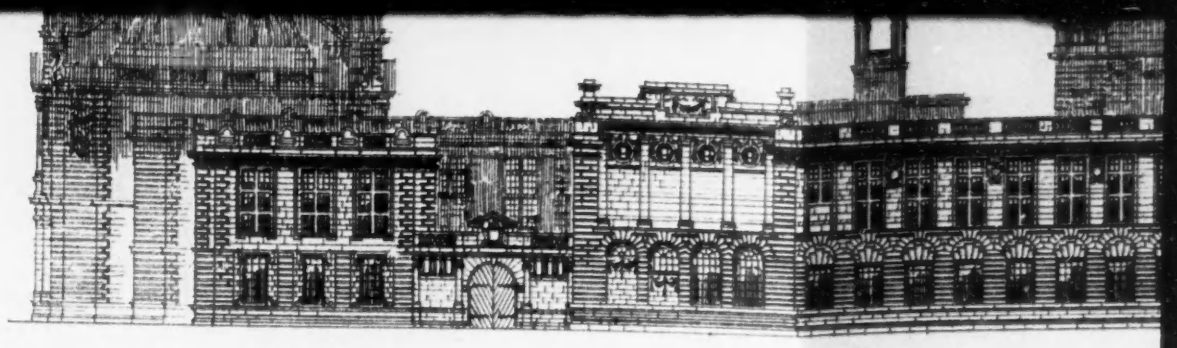
NORTH-EAST ELEVATION, TOWARDS COURT.

W. H. Caröe
Architect.
1904.

T. Raffe Davison Self.

SOUTH WAL



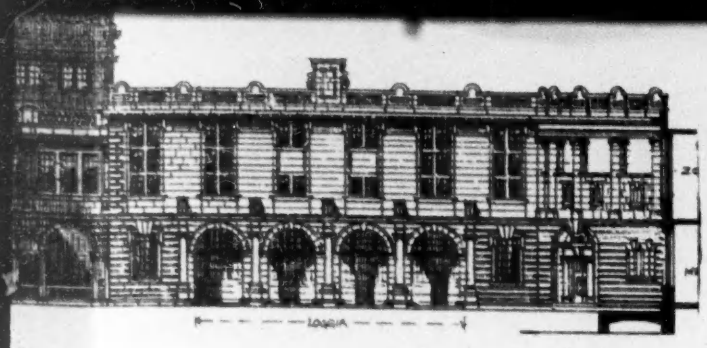


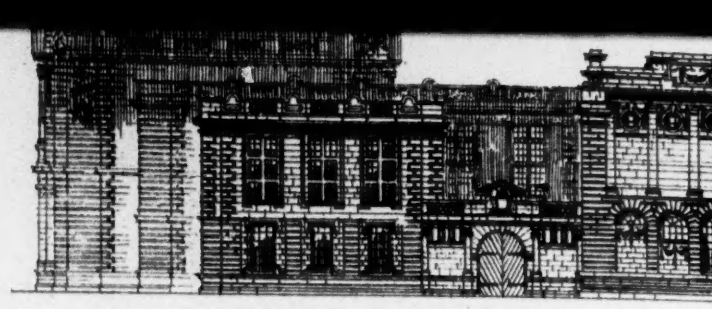
PUBLIC HEALTH

NORTH-WEST ELEVATION.

TH WALES UNIVERSITY COLLEGE, CARDIFF.—Mr. W. D. Caröe, F.R.I.B.A., Architect.

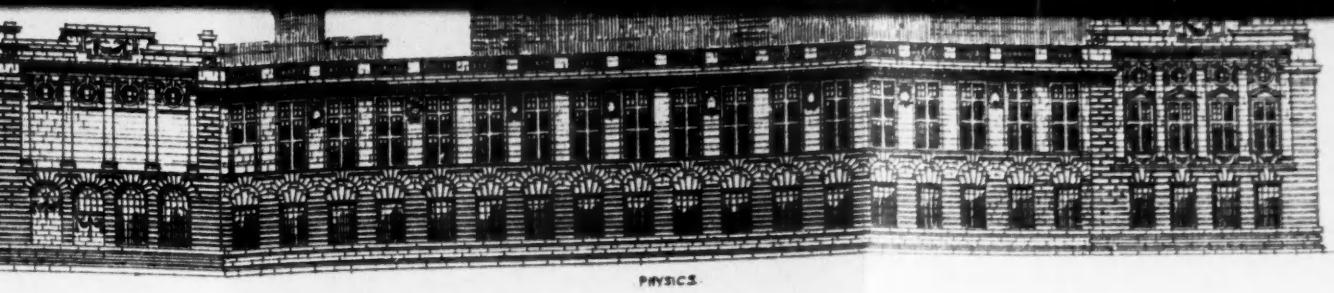
BIRD'S-EYE VIEW.





SOUTH WALES UNIVERSITY COLLEGE, CARDIFF.—Mr. W. D. Caröe, F.R.I.B.A., Architect.

BIRD'S-EYE VIEW.



NORTH-WEST ELEVATION.

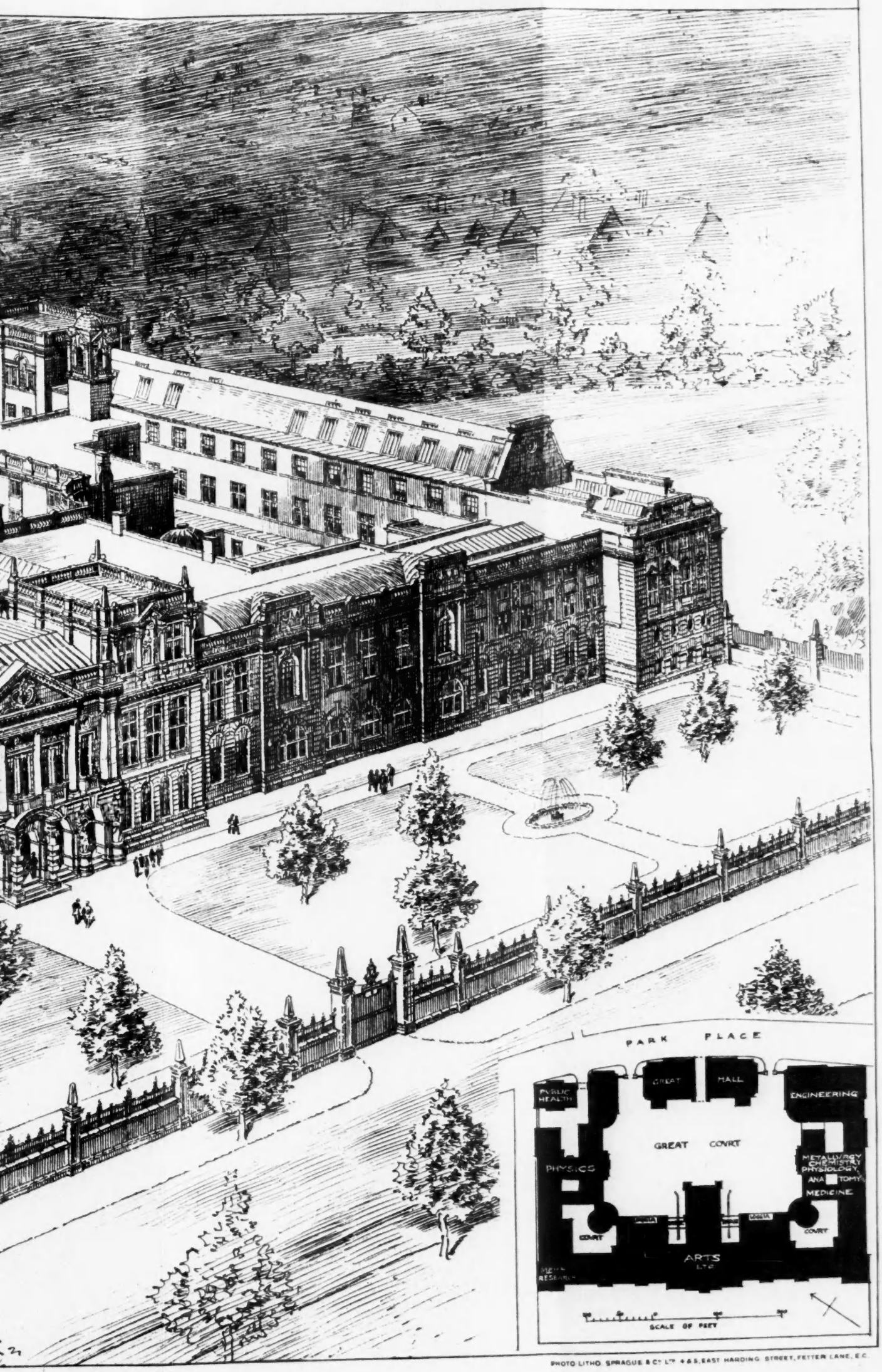
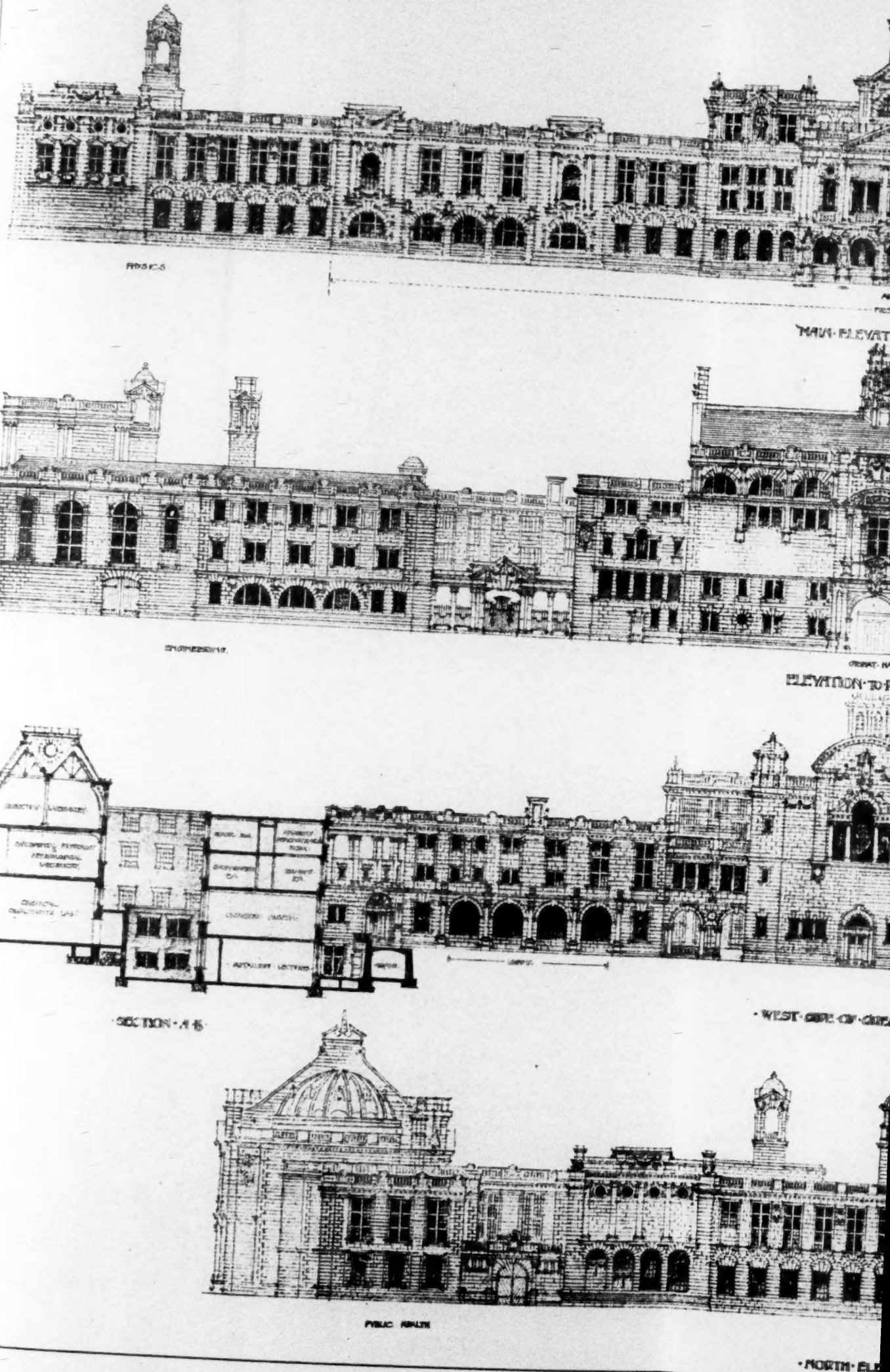


PHOTO LITHO. SPRAGUE & Co LTD 4 & 5, EAST HARDING STREET, FETTER LANE, E.C.



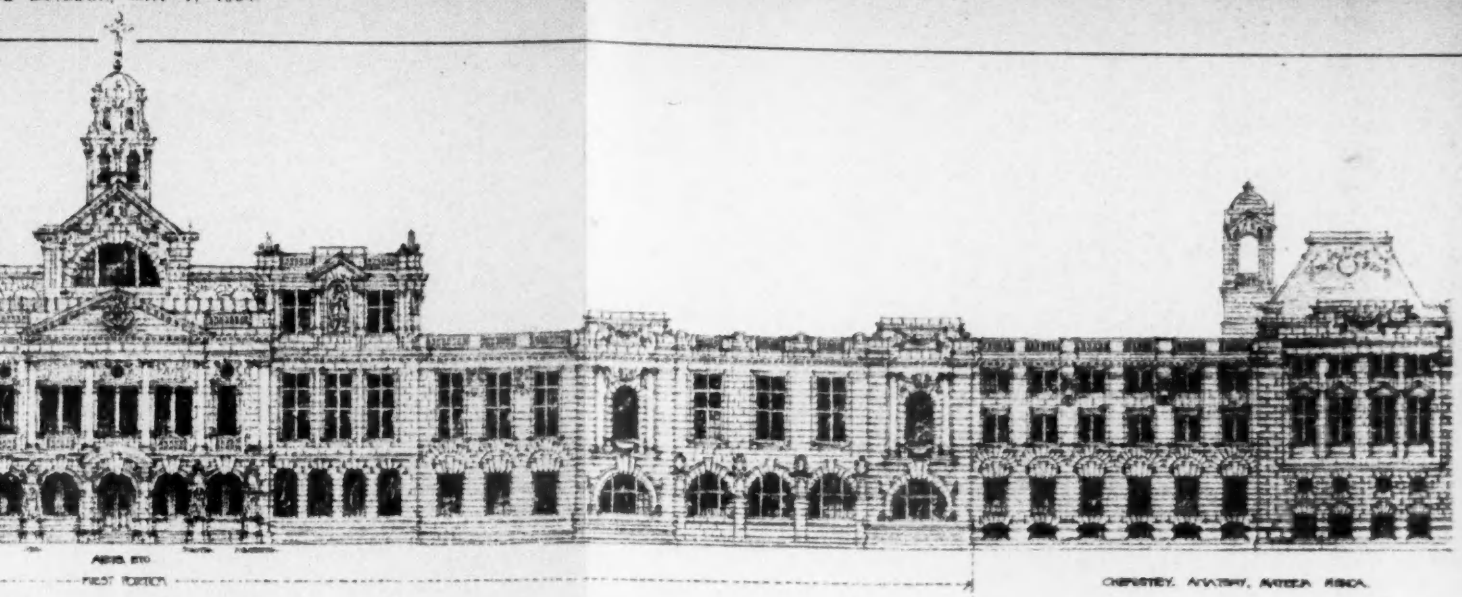
SOUTH WALES UNIVERSITY COLLEGE, CARDIF

ELEVATIONS

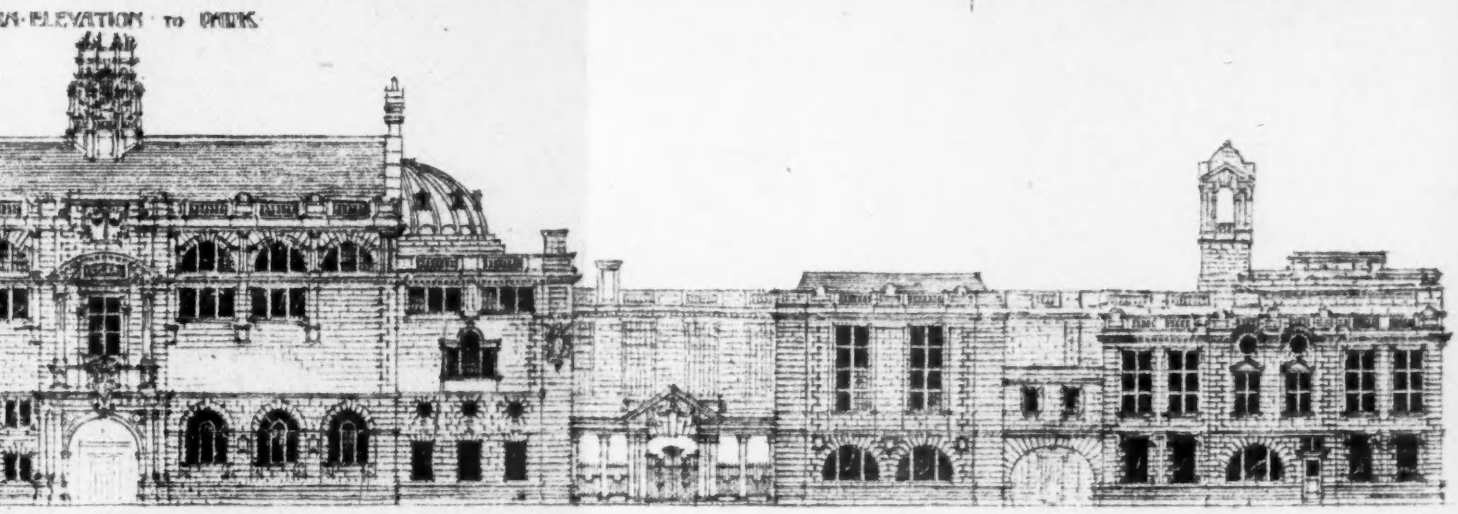
...o load a circular arch beyond
...e from the crown, so that the
...e shall coincide with the axis

...n it is usual to consider the
...n arch only within an angular
...g, on either side of the crown,
... heavy backing to the corre-
(See Fig. 62, p. 393.)
...nstrates* that the horizontal
...equal to the weight supported
...vn and that part of the soffit

... Engineering," p. 424.



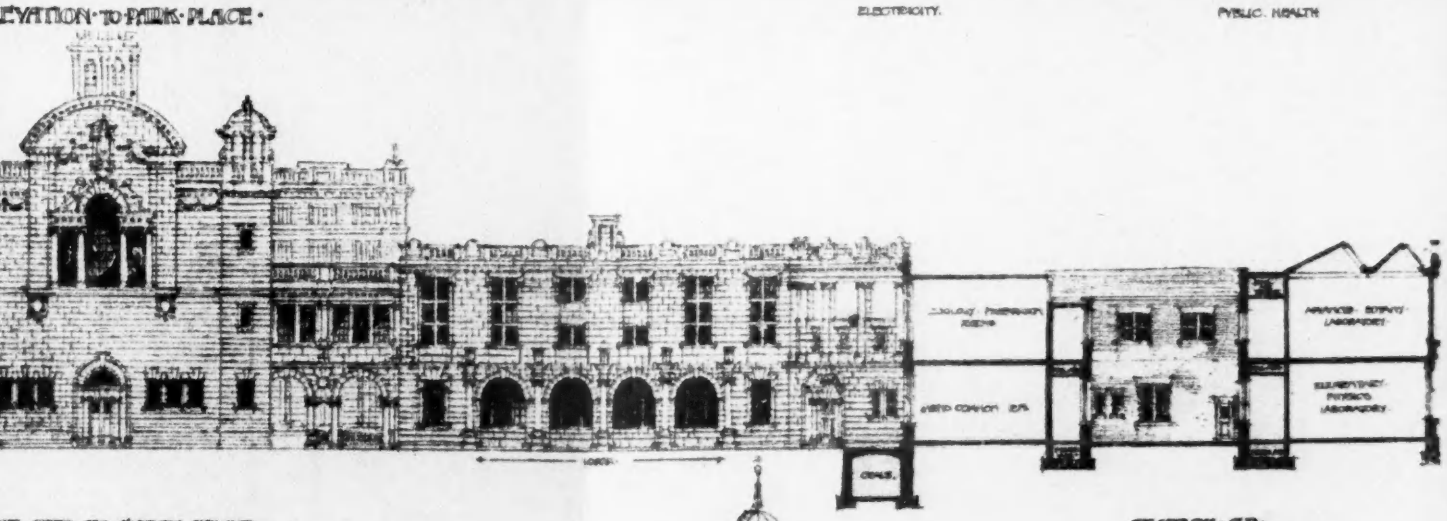
CHEMISTRY. ANATOMY. ARTS & MEDICINE.

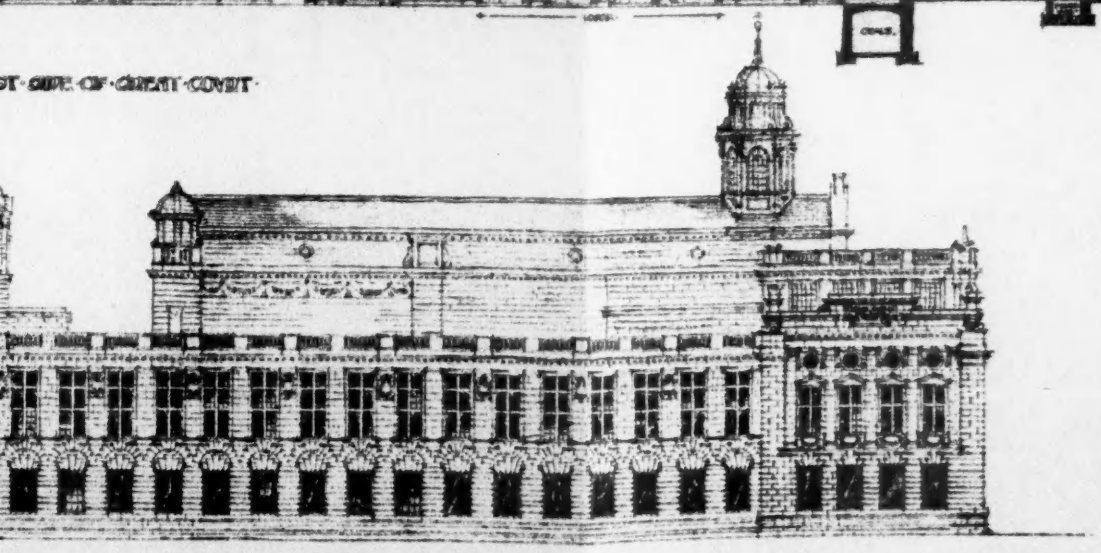


GREAT HALL.

ELECTRICITY.

PUBLIC HEALTH





PHYSICS

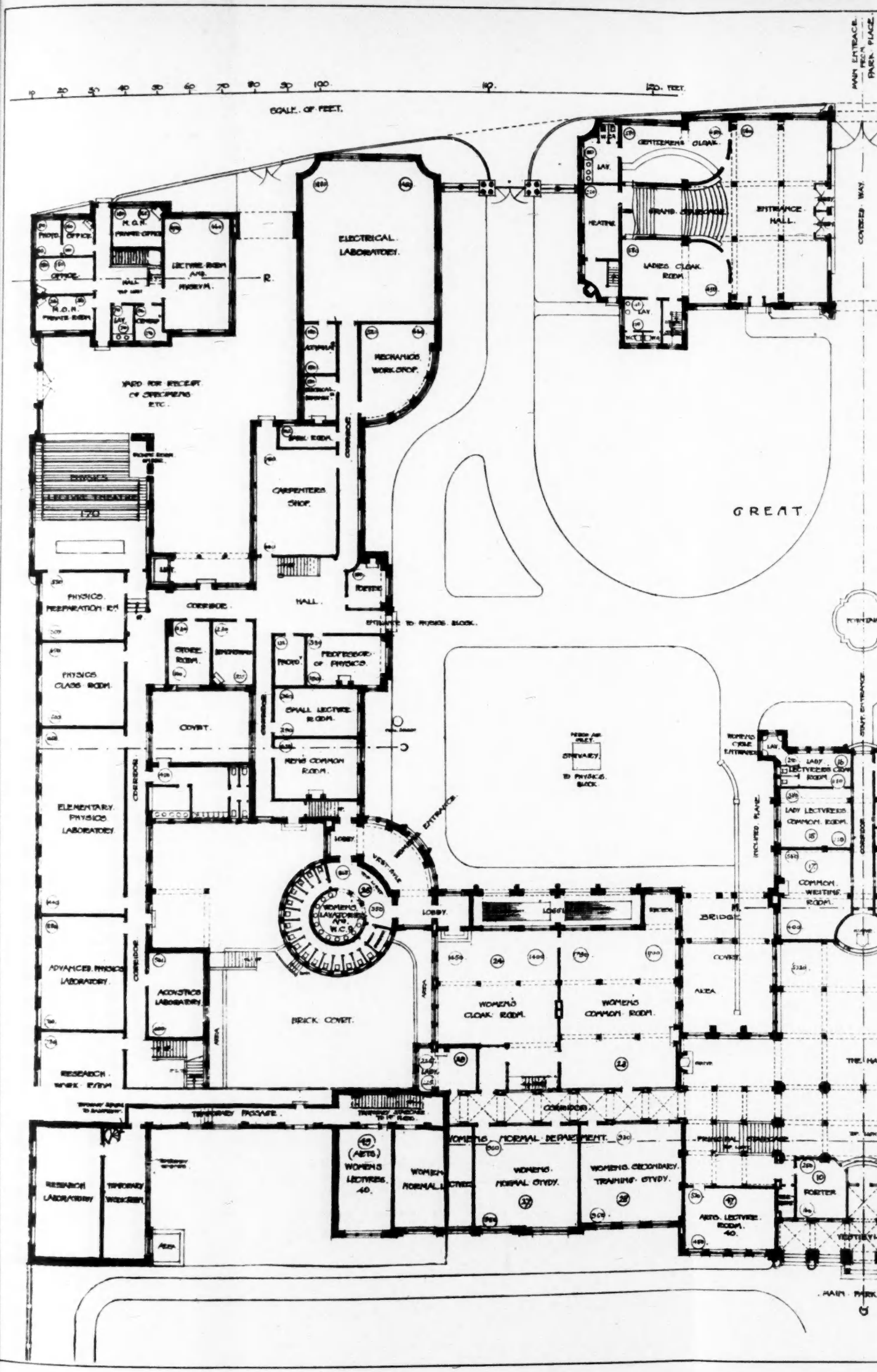
10 5 0 10 20 30 40 50 100 150 200 Feet

·NORTH·ELEVATION·

"INK-PHOTO," SPRAGUE & C° LT° 4 & 5, EAST HARDING STREET, FETTER LANE, E.C.

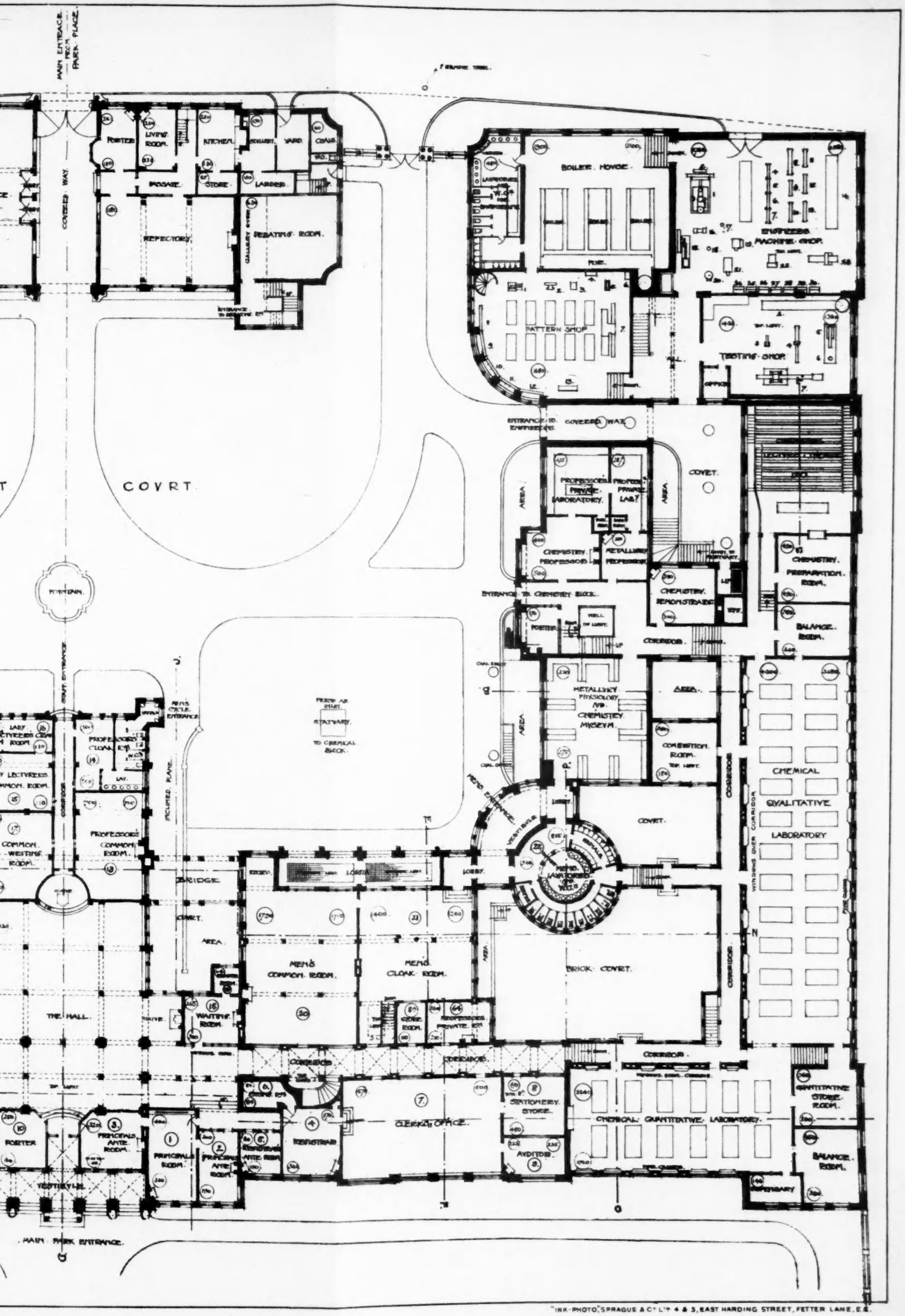
EGE, CARDIFF.—Mr. W. D. Carõe, F.R.I.B.A., Architect.

ELEVATIONS.



SOUTH WALES UNIVERSITY COLLEGE, CARD

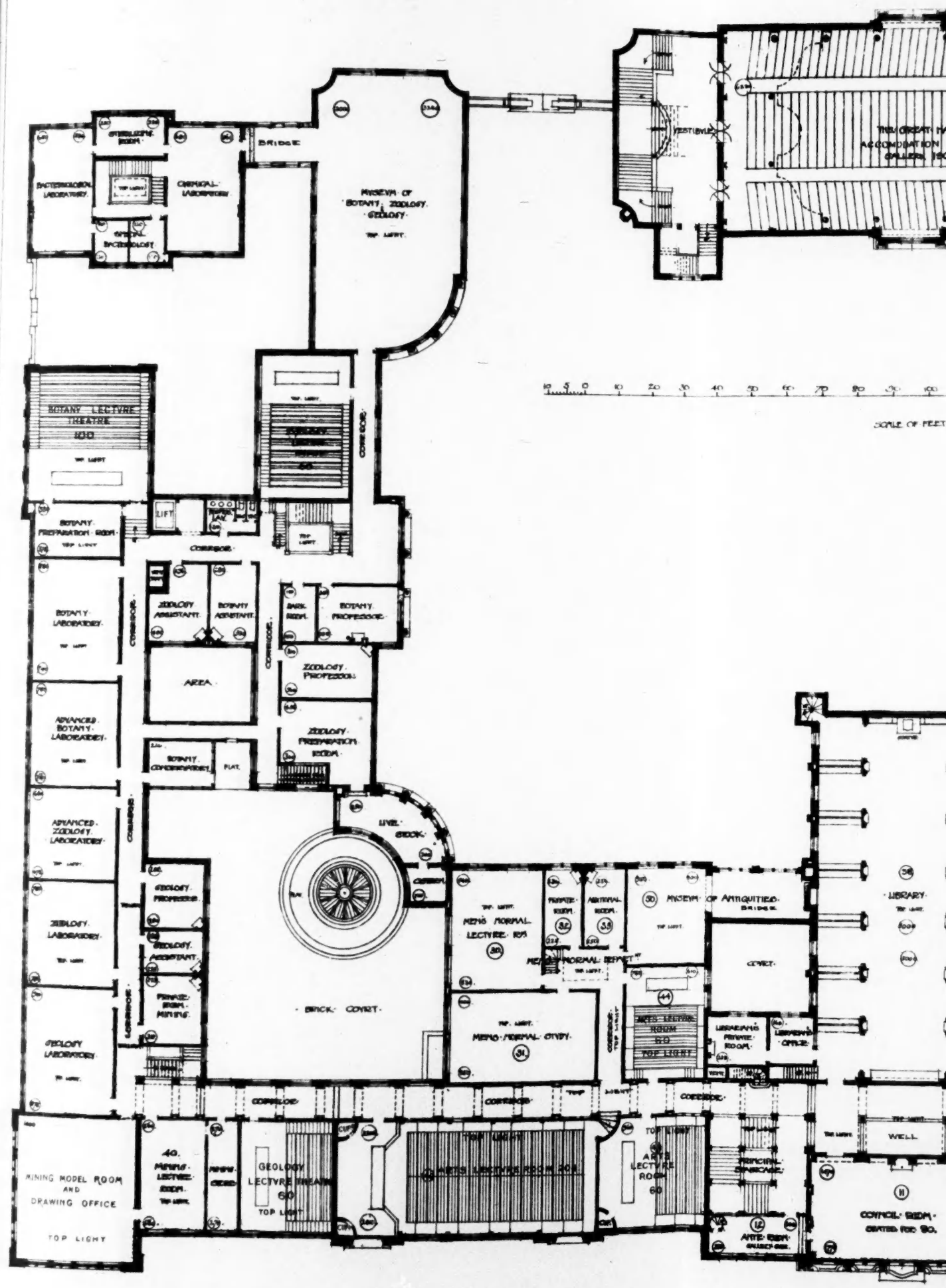
GROUND F



"INK-PHOTO" SPRAGUE & Co LTD 4 & 5, EAST HARDING STREET, FETTER LANE, E.C.

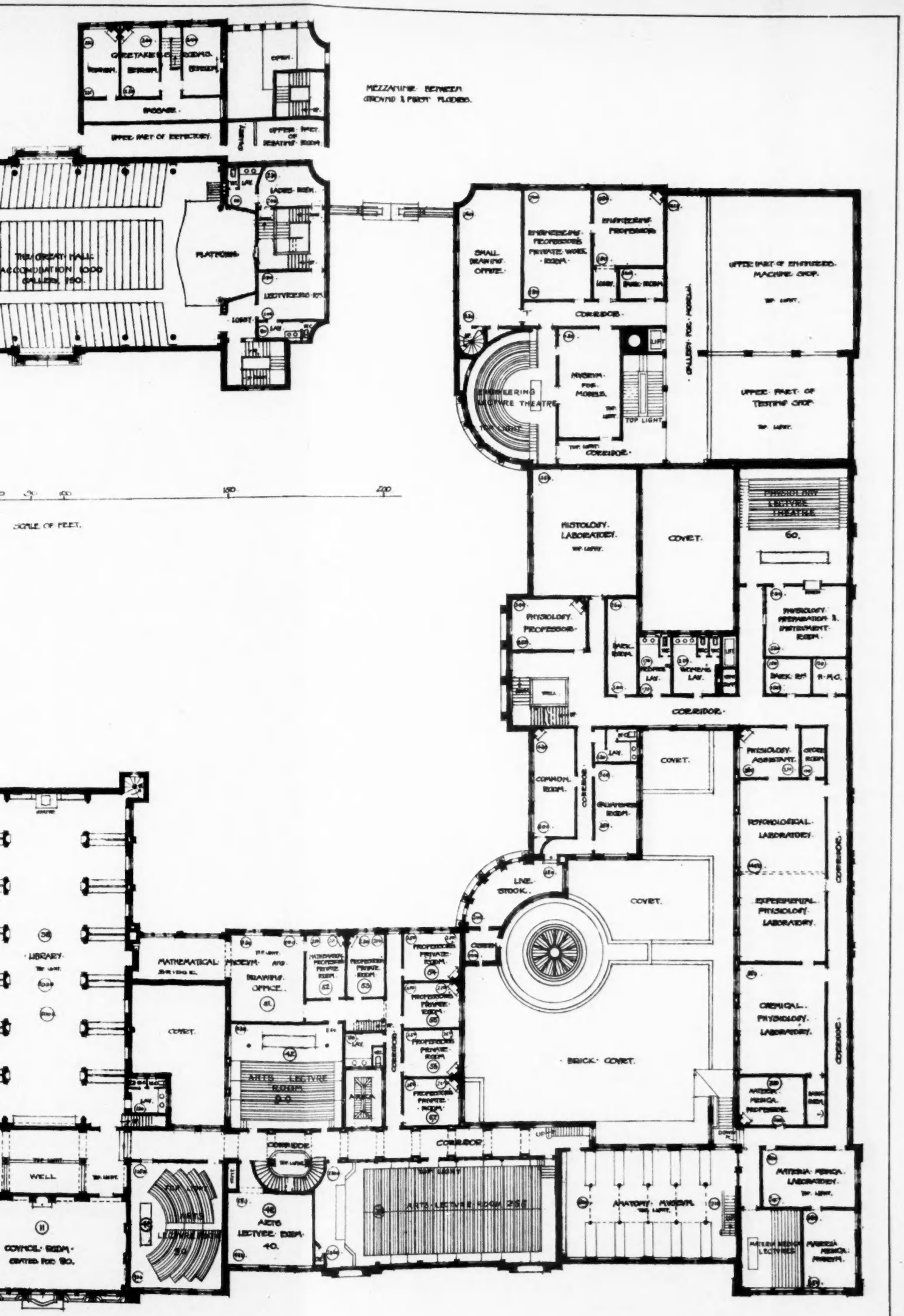
EGE, CARDIFF.—MR. W. D. CARÖE, F.R.I.B.A., ARCHITECT.

GROUND PLAN.



SOUTH WALES UNIVERSITY COLLEGE, CARDIF

FIRST FLOOR P



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GE, CARDIFF.—Mr. W. D. Caröe, F.R.I.B.A., Architect.

RST FLOOR PLAN.

whose inclination is 45 deg. Thus, in Fig. 72, let A C B represent one-half of a circular arch, O being the centre of the intrados, and O A its radius. Draw O C F, making the angle A O C = 45 deg. with the vertical; then the horizontal thrust of the arch will be nearly equal to the weight of the mass A C F V U which lies between the joint C F and the crown. The point F is that up to whose level the backing should be carried up solid, or, at all events, be bonded or jointed in such a manner that it shall be capable of transmitting the required horizontal thrust.

It is frequently desirable, however, to carry the backing still further towards the crown, its extent and thickness being varied according to circumstances.

Solid backing may be provided by thickening the arch ring between the apparent springing and the joint of rupture, or the arch ring may be reinforced by coursed masonry, rubble, or concrete laid outside and above the voussoirs.

Backing is occasionally built in radial course, forming extensions of the bed joints of the voussoirs, but is more generally laid in horizontal courses, abutting against the arch ring, some stones of which project so as to insure a good bond. Sometimes the outer ends of the voussoirs are cut with horizontal faces, as in Fig. 62, p. 393, the backing being built in courses of the same depth as the steps so formed, and bonded with them.

In small arches the outer spandrel walls are often filled with earth from the arch ring up to the road level, as in Fig. 73. As we have already pointed out in Article VII., p. 170, earth so employed cannot exert a vertical pressure equivalent to its weight, and the action of the side walls tends further to relieve the arch ring from the direct pressure of the earth. When a retaining wall is built above the abutments, as in Fig. 68, the earth filling may, however, be regarded without much error as exercising vertical pressure upon the arch ring.

Fig. 74 shows an arch in which the spandrel, between the arch ring and the road level, is partly filled with masonry backing, sloping gradually from the crown towards the springing, the remaining space being filled with earth between longitudinal walls.

When earth filling is adopted, *tie-walls* built transversely between the longitudinal spandrel walls may be necessary for affording lateral support to the latter. The distance from centre to centre of the tie-walls should be about four times the distance between the centres of the spandrel walls.

Fig. 75 shows two methods of lightening the spandrels—(1) By the use of brick filling above the backing; and (2) by leaving an empty space above the backing. Fig. 76 shows another method of lightening the spandrels by the use of longitudinal brick-arched openings.

It is very difficult to determine the precise value of the stability added to an arch ring by the employment of backing, but it is quite certain that the additional security thereby afforded is very considerable. Well-built masonry can be stepped out to an angle of fully 50 deg. from the horizontal, and remain perfectly stable, providing its weight is properly counterbalanced. Consequently cases often occur in which the visible ring of voussoirs in an arch is chiefly useful as an ornament, and its value, so far as stability is concerned, may be actually less than that of the masonry backing.

The top of the backing, or any parts of the upper surface of the arch ring that are simply covered with earth, should be protected by a coating of cement mortar, coal tar, or asphalt to prevent the percolation of water. Where voids are left in the spandrel filling, ventilation holes should be provided, and drain pipes must be inserted wherever necessary for the removal of water. In arched bridges of more than one span, drainage is usually effected by sloping the upper surface of the backing from each side and from the centre of each span towards a central point over each intermediate pier. Water thus collected can be discharged by drain pipes passing through the haunches.

The stability of an abutment cannot be considered separately, for it is governed by the position of the line of resistance of the arch. Therefore, for the purposes of calculation, the abutment should be treated as forming a part of the arch, and its stability can be determined by extending the load line of the force diagram drawn for the arch, so as to include the forces acting upon the abutment. The reactions can then be obtained in the usual manner, or by the following method:—

Let Fig. 77 be an abutment subjected to a horizontal force $a\ b$, and a vertical force $b\ c$ of which the resultant $R = a\ c$ acts at the point c. These forces, together with the weights of the four blocks of the masonry, are set out to any convenient scale as indicated in Fig. 78. The weights of the four blocks are $c\ d$, $d\ e$, $e\ f$, and $f\ g$, and their centres of gravity are shown in Fig. 78 by small circles. The pressure on the point d is the resultant $a\ c + c\ d = a\ d$, the line of action of which passes through the intersection of $a\ c$, and a vertical line through the centre of gravity of the block, the point of application at d being indicated by an arrow parallel to $a\ d$. The resultant pressures at the remaining points e, f, and g, in Fig. 77, are parallel and equal to $a\ e$, $a\ f$, and $a\ g$, in Fig. 78. A line connecting the points of application c, d, e, f, and g, of the resultant pressures on the successive joints of the masonry would be the line of resistance for the abutment.

Fig. 79 shows two lines of resistance for the abutment of the semi-arch, illustrated in Fig. 47, p. 229. The inner of these lines has been determined by a continuation of the method described in Article IX., and the outer line by a continuation of Scheffler's method, described in Article XI.

In the former case, although the horizontal components of the external forces acting upon the arch ring are duly considered, the horizontal component of the external force acting against the abutment is disregarded, and, if taken into account, the line of resistance would be still nearer the axis of the abutment than is shown in Fig. 79. It is evident that if Scheffler's line of resistance be accepted, the width of the abutment must be considerably increased to comply with the condition of stability which dictates that the line of resistance must lie within the middle third.

Consequently, we find that any theory of arch construction in which the external forces are assumed to be entirely vertical, clearly necessitates much heavier abutments than a theory in which the existence of the horizontal components is properly recognised.

When this line of resistance has been determined, the stability of the abutment against failure by rotation, and against failure by crushing, may be considered, as described in Article IX., p. 229. By the same article it will be seen that stability against sliding is to be assured by making the joints of an abutment nearly perpendicular to the line of resistance. Hence the construction of the abutment in radiating courses is clearly conducive to maximum strength and stability, especially when the foundation is good and the height of the springing is not great. The face of an abutment so built is really a continuation of the intrados of the arch, and its back is a continuation of the extrados of the backing, which should likewise be built in radiating courses.

Although the advantage of radiating joints is generally recognised, many designers make it a practice to hide this form of construction by outer walls of masonry laid in horizontal courses. This practice is strongly to be condemned, as it is entirely contrary to the principles of true artistic design to hide the characteristic features of a structure in this manner.

In the design of abutments generally it must be remembered that not only has the outward thrust of the arch to be resisted, but the inward thrust of the earth. In arches of considerable span the former is the more important factor; and in small arches, particularly those having a heavy surcharge, the latter is the more important. Consequently for large arches, or for arches of which the surcharge is small proportionately to the span, the abutments should be designed with especial regard to the thrust of the arch; and for arches of which the surcharge is proportionately great, the abutments should be designed to act as retaining walls.

Abutments are frequently built with transverse archways, or with internal hollows. This practice is advantageous, as conducing to stability and economy. When archways are employed inverts should be built at the bottom with the object of distributing the load over the greatest possible area.

To provide for the permanent stability of a pier common to two arches, it is essential that the line of pressure should be confined to the middle third of the masonry.

Let Fig. 80 be a pier resisting the thrust of an arch on either side. The thrust of the left hand arch is $a\ b$, and that of the right hand arch $b\ c$, the point of intersection being at c. In this case it is assumed that $a\ b$ is greater than $b\ c$. To any convenient scale, lay off the two forces $a\ b$, $b\ c$, and the weights of the four blocks $c\ d$, $d\ e$, $e\ f$, $f\ g$, of the pier masonry, as in Fig. 81. The direction of the resultant pressure at the point c in Fig. 81, is $R_1 = a\ c$, and the resultant pressure on the joint d is the resultant of $a\ c + c\ d = a\ d$, its line of action $c\ d$ passing through c. The lines of action of the pressures on the remaining joints will also pass through c, as the centres of gravity of all the masonry blocks are on the vertical line A B, passing through this point. These lines of action $c\ d$, $c\ e$, $c\ f$, and $c\ g$, are parallel respectively to the resultants $a\ d$, $d\ e$, $a\ f$, and $a\ g$ in Fig. 81.

If the thrusts of the two arches were equal in intensity and direction, the resultant line of pressure on the pier would necessarily lie along the vertical axis A B.

An *abutment pier* is designed to reflect vibrations passing from arch to arch along a viaduct. During the erection of the structure it acts as an abutment, as, for instance, when the arches on one side are partly built. The temporary line of pressure during the construction of the arches may then approach nearer to the outside of the pier than would be permissible afterwards, as the load is perfectly steady and in one direction only. Hence the line of stress may temporarily lie outside the middle third of the masonry, and under such circumstances it may be safe to permit the centres of stress to approach to within one-eighth of the thickness from the outer face of the masonry.

If by any misadventure one arch of a series should collapse during construction, or afterwards, the damage should only extend to the nearest abutment pier. In a long viaduct, simply supported by common piers, the failure of one span would almost inevitably be followed by the failure of the entire structure. Therefore it will be seen that the incorporation of strong abutment piers at suitable intervals is a most necessary precaution.

BOOKS RECEIVED.

GREAT MASTERS: REPRODUCTIONS IN PHOTOGRAVURE. Part XIV. (W. Heinemann. 5s.)

SLINGSBY AND SLINGSBY CASTLE. By the Rev. Arthur St. Clair Brooke. (Methuen and Co. 7s. 6d.)

HOMES FOR THE COUNTRY. By R. A. Briggs, architect. (B. T. Batsford. 10s. 6d.)

A POCKET-BOOK OF TABLES AND MEMORANDA. By J. Wright Clarke. (B. T. Batsford. 1s. 6d.)

THE ART OF MASONRY IN GREAT BRITAIN. By William Diack. (Offices of the *Stone Trades' Journal*).

BEST METHOD OF SEWAGE DISPOSAL FOR SMALL COMMUNITIES. By F. Wallis Stoddart. (John Wright and Co., Bristol. 6d.)

A PRÉCIS OF THE ENGLISH LAW AFFECTING LANDLORD AND TENANT. By Laurence Duckworth. (Effingham Wilson. 2s.)

THE EXPERIMENTAL BACTERIAL TREATMENT OF LONDON SEWAGE. By Professor F. Clowes and A. C. Houston. (P. S. King and Son. 10s.)

GENERAL BUILDING NEWS.

THE SAVOY HOTEL EXTENSION.—The new buildings which give the Savoy Hotel a frontage on the Strand, and which have been constructed on the American system, have been practically completed. The hotel will, in future, have frontage and entrance on the Strand, and another on the embankment. The courtyard has been paved with indiarubber slabs, so as to insure quiet. On the right as one enters is the Savoy Theatre; on the left and front is the hotel. The left side is given up to a Parisian café. Part of the premises are to be devoted to flats, or residential suites. The architects were Messrs. Collcutt and Hamp, the woodwork in the entrance hall and the extension to the restaurant was entrusted to Messrs. Gillow and Co., and the whole of the sanitary work was carried out by Messrs. Doulton and Co. Next week we hope to give a fuller account of the new work.

CATHOLIC CATHEDRAL, LEEDS.—The new Roman Catholic Cathedral for the diocese of Leeds was inaugurated a few days ago. The site of the old cathedral and schools was required for a street improvement by the Leeds Corporation, who not only gave 46,000*l.* for the land, but made over the site for the new cathedral to the Catholic authorities, costing an additional 30,000*l.* The architect is Mr. J. H. Eastwood, of Kensington. The building

was illustrated and described in our issues for March 9, and May 18, 1901. An illustration of the altar was given on October 31, 1903.

GORTLETTERA NEW CHURCH, IRELAND.—The new Church of St. Mary's, Gortlettera, was opened a few days ago. The church is cruciform, consisting of nave, transepts, and chancel. The nave is 60 ft. by 25 ft., and is lighted by six single-light windows—three on either side—with lancet heads. The transepts are lighted by similar windows—two on either side—and by a three-light window on the gables. The chancel is 25 ft. by 14 ft. The roof is covered with blue slates and red-crested ridge tiles. The sacristy is 17 ft. by 13 ft. Over the front entrance of the church is a rose window, and on either side of the entrance is a small single-light window, with cusped head, as also four-angle buttresses. The high altar is worked in Sicilian marble, with supports and carvings of statuary and coloured marble shafts. The set of candlesticks were supplied by Messrs. Gunning and Reynolds, Dublin, and the stations of the cross by Messrs. Coppestan, Dublin. The floor is laid with wood, and the walls internally are plastered and finished in Keane's cement. Mr. Fee, of Longford, was the contractor, and Mr. T. F. M'Namara the architect, Dublin.

ST. JOSEPH'S CHURCH, TERENURE, IRELAND.—The dedication of the new Roman Catholic Church (St. Joseph's), Terenure, took place on the 24th ult. The cost of the building has been about 20,000*l.*, which includes the cost of the high altar and of the furniture. The Church is complete with the exception of the tower and spire. It was built by Messrs. Meade and Son, from designs by Mr. W. H. Byrne.

CHURCH, SWANNINGTON, LEICESTERSHIRE.—The new chancel and restored portions of St. George's Church, Swannington, were dedicated on St. George's Day. The architect for the work was Mr. G. H. Fellowes Prynne, of London.

NEW WESLEYAN SCHOOL, SKELMANTHORPE, YORKSHIRE.—The foundation stones were laid recently of the new Wesleyan Sunday-school at Skelmanthorpe, Yorkshire. The new building will be 54 ft. by 29 ft. 6 in., with two class-rooms on the same floor, and a large class-room on the first floor. There are also six existing class-rooms and a kitchen underneath the new school, with entrances on the same level as the chapel floor. The roof will be in pitchpine, ceiled at the collar beams, and covered with green Westmorland slates. Mr. Joseph Berry, of Huddersfield, is the architect, and the following are the various contractors:—Masons, Messrs. John Hollingworth and Sons, Cumberworth; joiners, Mr. Tom Blacker, Skelmanthorpe; plumbers, Messrs. W. France and Co., Honley; plasterer, Mr. John Hallas, Clayton West; slaters, Messrs. T. Longbottom and Sons, Lockwood; painters, Messrs. Dyson and Armitage, Skelmanthorpe; concreter, Mr. John Cooke, Huddersfield; heating engineers, Messrs. Brook, Hardcastle, and Watson, Huddersfield. The cost will be about 1,600*l.*

COMPLETION OF SOUTH-WESTERN POLYTECHNIC.—The formal opening on the 6th inst., by Earl Cadogan, of the new hall, classrooms, laboratories, etc., at the South-Western Polytechnic, Manresa-road, Chelsea, marks the completion of this institution within the original site. After a public competition, the designs of the late Mr. J. M. Brydon were selected, and the first portion of the institution was erected and opened for work in 1895. By the rapid growth of the institution this soon proved inadequate to the requirements, as, early in 1899, further sums being granted, and the conditions having materially changed, the Governing Body instructed Mr. F. G. Knight to prepare plans for additional classrooms, lecture theatre, laboratories, and other buildings. Contracts were then entered into, and have since continuously been undertaken for additions, finally culminating in the present contract for the erection of the large hall, 68 ft. 6 in. by 43 ft. 3 in., for the combined purpose of a public hall (for concerts or other entertainments), and the female students' gymnasium, with classrooms, lavatories, etc., adjoining, an advanced cookery classroom, bricklayers and plasterers' workshops, photographic laboratories, a new refreshment department, new boiler house for 300 n.h.p. boiler, erected by Messrs. Danks and Co., with Messrs. Greens' economiser, and Sturtevant's fan propeller. Extensions to the mechanical and electrical laboratories, new wiring shop, etc., etc. The general plan of the institution is a parallelogram, about 214 ft. by 187 ft., with the hall across the centre axis, with large internal areas on either side. A corridor, 8 ft. in width, is continued around the building on the ground and first floors, with the various laboratories, classrooms, etc., generally on the outer side. The difficulty of combining the hall for concerts, etc., and a gymnasium has been met by arranging for the quick and easy removal of all the apparatus for the latter, either into the roof or under the floor. Being also a public hall, the requirements of the London County Council have been met, and the building, as far as possible, has been constructed of fireproof material. All floors are of iron and concrete, with rock maple block flooring, except the hall, where maple batten flooring is laid on sleepers bedded in the concrete; the roof is of steel construction with metal lathing, and granitic silicon plastering. Fire mains, hydrants, etc., have been carried out by Messrs. Shand, Mason, and Co. The heating of the hall and the adjoining rooms and the original gymnasium is by a combined system of Plenum and natural ventilation, *i.e.*, fresh air is drawn in at the basement level and driven through ducts by a 40-in. electrically-driven fan over large batteries, entering the hall and other rooms at the floor level and extracted through or at the level of ceilings. The remainder of the institution is heated by the exhaust steam to radiators in all rooms, corridors, etc. This work has been executed by Messrs. Z. D. Berry and Sons. The piers in the side walls of the hall being reduced to the smallest possible dimensions to admit the greatest amount of window openings, the roof is constructed and carried by two trussed steel purlins, resting on the end walls, braced together at intervals, relieving the weight from side walls. This, with the whole of the constructional ironwork and concrete flooring, has been executed by Messrs. Dennett and Ingle. All the gymnasium fixtures have been made by English manufacturers; the joinery work by Messrs. S. Elliott and Sons, of Reading; ironwork by Mr. E. Goddard. The general contractor for the last contract has been Mr. A. A. Webber, of Mortimer-street, W., and Mr. W. Winteringham has acted as clerk of the works.

POLICE STATIONS, BIRMINGHAM.—On the 19th ult., at the Council House, Birmingham, Major J. Stewart, R.E., one of the inspectors of the Local Government Board, held an inquiry relative to the application of the City Council for sanction to borrow 7,000*l.* for the erection of a sub-police station at Lingard-street, Nechells; 1,322*l.* for the purpose of enlarging Duke-street police station, and 1,550*l.* for the purchase of property situate at the junction of Wright-road and Malthouse-lane with the Washwood Heath-road, for the purpose of a police station. The City Surveyor (Mr. J. Price), and the Building Surveyor (Mr. A. W. Lee) were amongst those present.

CAFÉ, HALIFAX.—Messrs. G. Webster and Sons have just extended their Silver-street café. As a result of the extension the seating accommodation has been increased to between seventy and eighty. The work has been carried out under the direction of Mr. Thomas Kershaw, architect. Messrs. Moss Bros. were responsible for the furnishings, and Messrs. J. Sunderland and Co. for the electrical fittings.

BATHS, DERBY.—The new Corporation baths have been erected from plans prepared by Mr. John Ward, the Borough Surveyor, the contractors being Messrs. Chattle, of Derby, and the clerk of the works Mr. W. C. Gardener. The building is of red brick with stone facings. The large swimming bath is 100 ft. long and 30 ft. wide, and will hold 96,000 gallons of water. The building is illuminated by the electric light, the work of Messrs. Newton Bros. Mr. Buxton has been responsible for the painting. The suite of rooms, in addition to the caretakers' apartments, include a committee room, pay offices, superintendent's room, etc.; whilst in winter a special flooring can be put down, and the large bath-room used for dancing, etc. There are spare rooms at the end, which may be utilised as dressing or waiting rooms. There is also a refreshment room. A special feature is the Turkish bath. There is also a plunge bath, and a Russian vapour bath. Most of the walls are of glazed bricks, and teak is used in the woodwork. In the woman's department there are three first-class and five second-class baths, and on the men's side there are five first-class and twenty-three second-class baths, in addition to Harper baths. In connexion with the swimming bath there are sixty-eight dressing-boxes, including one double one. The engineering work was carried out by Messrs. Jerram and Co., Derby. The sub-contractors are as follows:—Masonry, A. Pinder, Derby; plumbing, Jerram and Co., Derby; tiling, W. Frost and Son, Derby; marble work, S. Tinkler, Derby; wrought ironwork and bells, Taylor, Whiting, and Taylor, Derby; stokery to hot rooms, T. Bradford and Co., Salford; steel roof trusses, A. Handyside and Co., Derby; staining and polishing, W. J. Betts and Son, Derby; mosaic floors, J. and H. Patteson, Manchester; parquetry floors, H. Bassant, London; tile paving, H. Owen, Derby; clocks, John Smith and Sons, Derby; iron staircases, Hayward Bros. and Eckstein, London; plastering, Albert Dakin, Derby.

INEBRIATES' HOMES, LANGHO.—The Inebriates' Homes, erected by the Lancashire County and Borough Councils at Langho, near Whalley, were opened recently. The elevations of the buildings are in the Queen Anne style, the facings being of Accrington red-pressed bricks, relieved with stone dressings, with roofs covered with light green Westmorland slates. The administrative buildings and dwellings are arranged round a quadrangle. The accommodation for inmates will be provided for in six blocks of semi-detached villas, connected with the administrative blocks by means of covered ways. Each house is complete in itself, accommodating ten persons, and containing a day-room, attendants' room, scullery, lavatory, bath, store, and boot-room, and separate single bedrooms throughout, due attention having been given in these buildings to the proper classification of inmates. The day-rooms have a southern aspect. The southern portion of the administrative buildings, facing the quadrangle, contains offices for the director, lady superintendent, clerk, committee, visiting-rooms, surgery, with other suites of rooms. Situated behind this office block is a dining hall, capable of seating 200 persons, the intention of the committee being that all inmates shall take their meals in the same room. Classification will be secured by means of screens that will be used to subdivide the room. The hall will also be used for recreation. On the south side there is a chapel. A building to the north-east of the administrative block will be used for boiler-house, and for electrical plant, laundry, water tower, and workshops. The buildings are in telephonic communication with each other, and the heating and ventilation is carried out on the Plenum system. The sewage will be dealt with by bacterial treatment, and tanks with a capacity commensurate to a population of 400 have been provided. The farm buildings are conveniently situated, and the roads leading to and from them are to be made suitable for all farm purposes. The buildings have been erected from the designs of the county architect, Mr. Littler. The clerk of the works was Mr. J. Kirkbride. The general contract has been carried out by Messrs. J. Gerrard and Sons, Ltd., Swinton. Messrs. Wood and Slacke, Blackburn, have been responsible for the electric installation; Messrs. Yates and Thom, Blackburn, have supplied the boilers; and the furnishing has been entrusted to Messrs. Kendal, Milne and Co., Manchester.

NEW ISOLATION HOSPITAL, CHISWICK.—The Chiswick Urban District Council have erected an Infectious Diseases Hospital at a cost of about 12,000*l.*, which was opened recently. The hospital is situated at the north-east end of Clayponds-lane, a portion of the grounds being in the Urban District of Brentford, and a portion in the Borough of Ealing. Immediately facing the hospital, on the west, is the Brentford Sanatorium, and a little to the north is the Ealing Hospital, which is about to be enlarged at an estimated cost of 15,000*l.* The site is rectangular in shape, three acres in extent, and has a gravel soil. The buildings, in order to get a proper fall for drainage into the Ealing Sewage Works, have had to be raised several feet above ground level, and the drains are laid under the footpaths which traverse the grounds. The sewage is discharged, by a specially-constructed sewer, direct into the Ealing Sewage Works. At the highest point of each soil drain is fixed an automatic flushing tank. The whole of the surface water drainage is conveyed to a deep concrete tank built on the south side of the laundry; thence it is pumped into a tank over the laundry and used for washing purposes. The site is surrounded by a boundary wall, 7 ft. high; the buildings are of stock bricks, with red dressings and slate roofs, and consist of the following:—Porter's lodge at the entrance gates at the western boundary—this is small, being only designed for the porter and his wife: reached by a carriage drive are the receiving-rooms, three in number, each about 12 ft. by 8 ft., the centre one containing a bath, connected by covered corridor to the administrative block, which consists of matron's bedroom, three nurses' bedrooms, three servants' bedrooms, linen and general stores, bathroom, etc., on the first floor, and medical officer's sitting-room (15 ft. square), laboratory (10 ft. 6 in. by 7 ft. 6 in.), dispensary (15 ft. by 7 ft. 6 in.), matron's sitting-room, and nurses' sitting-room (each about 15 ft. square), kitchen (17 ft. square), scullery (10 ft. square), larder (10 ft. by 6 ft.), and offices on the ground floor, all these rooms being 10 ft. in height. On the east side, connected by a covered corridor, is the scarlet fever block, which has two large wards, male and female (36 ft. long, 26 ft. wide, and 13 ft. in height),

to receive six beds in each. These wards are fitted with centre stoves by Shoreland, with cold air inlet and flues under the floors. At the end of each of these wards is a paying ward (26 ft. by 12 ft. by 13 ft.), to accommodate two beds. Connected with these wards are lavatories, etc., the walls of which are lined with opalite tiling, and the partitions between water-closets, etc., are white enamelled slate, carried 6 ft. 6 in. above the floor. The floors consist of a deal sub-floor, lined with polished pitch-pine, secret nailed. The ventilation is by means of glass hoppers to each window, and air inlets on the floor line at the head of each bed, with Sheringham's ventilators at the ceiling. Between the two wards is a nurses' duty-room (about 14 ft. square), with observation windows looking into each ward. Standing in the entrance lobby to this pavilion is a portable bath, fitted with rubber wheels for the purpose of taking into the wards. On the north side of the administrative block, and connected with it by a covered corridor, is the probationary block. This contains two wards (24 ft. by 16 ft.), male and female, to accommodate two beds each, with lavatories, etc., at each end, and nurses' duty-room (13 ft. square) in the centre, with observation windows, etc. This pavilion has a verandah on the south side, and is fitted in a similar manner to the scarlet fever block. At the north-west corner of the ground are situated the laundry buildings, which consist of:—Disinfecting and pure room (each 12 ft. square), fitted with a Washington Lyons machine, engine-room, and boiler-house (14 ft. by 12 ft.), coal stores, wash-house (24 ft. by 19 ft.), etc., with washing machine, hydro extractor, wringer, and Ducoden ironing machine, washing tubs, rinsing tanks, etc. In the ironing-room is constructed a drying-chamber, heated by steam coil, and fitted with drying-horses on steel runners. On the north side of the laundry is the mortuary, fitted with enamelled slate post-mortem slab, with sinks and lavatory (hot and cold water supply), and benches for coffins, with a viewing lobby outside. The whole of the walls are covered with opalite tiling with circular angles. Adjoining is the ambulance shed, to accommodate two vehicles. As now usual in hospitals, there are no square angles throughout either of the pavilions, the junctions of the ceiling and walls and of the floor and walls, as well as the reveals and sills of the windows being all circular in section. The whole of the buildings are heated with hot-water radiators, which are supplied from heating chamber under the receiving-rooms, which contain two boilers, one for the hot water supply to sinks and lavatories, and the other for the radiators. In addition to the radiators, there are stoves in each of the rooms. The whole of the disinfecting and laundry machinery has been supplied by Messrs. Goddard, Massey, and Warner, Ltd., of Nottingham. The buildings are lighted with electric light throughout, supplied by the Ealing Corporation, and are all connected by telephone to the administrative block. The site was formerly an orchard, and in laying out the grounds, advantage has been taken of the opportunity to utilise a large number of good fruit-bearing trees for the purposes of the hospital. The grounds have been laid out under the supervision of Mr. S. T. Wright, the Superintendent of the Royal Horticultural Society's gardens, at Chiswick, and, when completed, will make the hospital an ideal and pleasant spot. The whole of the plans and specifications were prepared by Mr. Sydney Eydmann, under the supervision of the late surveyor (Mr. A. Ramsden), and the works have been executed under Mr. Eydmann's superintendence as architect. The quantities were supplied by Messrs. Morris Evans and Son. The buildings have been erected by Mr. Edwin Wall, of Lower Tooting, who has executed similar work on a much larger scale for the Metropolitan Asylums Board.

EXTENSION OF MOTOR WORKS, GUILDFORD.—The extension of the motor works of Messrs. Dennis Bros., Guildford, has now been completed. The extended premises have been erected from designs by Mr. John Lake, of Guildford, the contractors having been Messrs. Drowley and Co., of Woking. With the additional land acquired, the new buildings have cost 8,000*l.*, and the machinery has involved an expenditure of an additional 5,000*l.* A power elevator has been constructed, and will l cars to any floor desired, both on the new extension and the old building. A stone staircase has been constructed by order of the authorities, which leads to all floors, while an air shaft has been placed between the two buildings, and as a further precaution in case of fire an outside iron staircase will be constructed.

THEATRE, LOUGHBOROUGH.—At the Loughborough Petty Sessions, on the 27th ult., Mr. R. S. Clifford, sen., renewed his application on behalf of Mr. John George Tindall Robertson for a full licence for a new theatre to be erected in Packe-street. Mr. A. E. King, architect and surveyor, produced the plans, which showed that accommodation was provided for 806 persons. There would be two bars. The magistrate granted the licence.

NEW HOSPITAL, MEXBOROUGH.—The foundation stone of the new Montagu Hospital, Mexborough, was recently laid. The new building, which stands on a site at the corner of Adwich-road and Cemetery-road, will be erected on the isolated buildings plan. In one pavilion will be two wards to accommodate ten and eight male patients respectively, and in the other pavilion a ward for eight women and children, in addition to which there will be an isolation ward and a small ward for two patients. The scheme also includes a separated operating room, with small ward attached, fitted up with surgical appliances and requisites, Board room, laundry, ambulance room, and suitable accommodation for the matron, nursing staff, and servants. The estimated cost of building and furnishing, exclusive of the land (valued at 750*l.*), is 8,000*l.* The architect is Mr. Knight.

NEW VILLAS, PURDYSBURN ASYLUM, IRELAND.—Two new villas have been erected in connexion with this asylum. The work has been carried out from the plans of Messrs. Graeme-Watt and Tulloch, the architects to the Asylum Board. Mr. Hutcheson Keith, of Belfast, was the builder.

DURHAM COLLEGE OF SCIENCE, NEWCASTLE-ON-TYNE.—The foundation stone of the front wing of the Durham College of Science, the construction of which will complete the building, has just been laid. The buildings now undertaken comprise the west front towards the Leazes, and the public lecture theatre behind it. This front will afford accommodation to the administrative department, and to the department of mathematics, geology, botany, natural history, agriculture, languages and literature, law, and possibly music. It will contain, also, the men's common room, the library, museum, Union Society's room, dining-room, and kitchen. The college buildings were originally designed by the late Mr. Robert J. Johnson, F.S.A., and Mr. W. H. Knowles, F.S.A., Newcastle, was selected to carry out the design. The extension comprising the present contract includes the principal wing and elevation, about 100 yards in length, towards the Leazes, and a large examination hall and lecture room, 70 ft. by 50 ft., lighted from the quadrangle. The buildings are to be of four stories in height, including the central tower 120 ft. to the parapet, which encloses the main entrance, opening into a hall 23 ft. in width. The principal's room is placed on the left of the entrance, with the Council room. Beyond is the junior staff room, and occupying the north-west angle of the block the Union room, 42 ft. square. On the right of the main entrance is the secretary's and porters' room, and contiguous thereto the clerks' office and an electrical engineering laboratory and mining laboratory. Opposite to the tower entrance is the grand staircase, and beyond it the large examination hall connected with the corridors on three sides. On the first floor is a library 60 ft. by 45 ft., lighted on two sides, and class-rooms for mathematics, literature, naval architecture, etc., and professors' rooms. On the second floor are class-rooms for languages, history and classics, and botanical laboratories, museum, and lecture room; and on the third floor, partially arranged in the roof, laboratories and museum for zoology. In the mezzanine are arranged ladies' cloak-rooms and lockers and the basement is occupied by dining-rooms for students and staff, lockers, etc. The warming and ventilation of each room will be effected on the steam atmospheric system, the upper portion of the tower being used for extract shafts. The elevations are to be of stone and red brick, and the roof covered with tiles. Large gables enclose the angle blocks on two sides, each to a height of 70 ft. The lowest stage of the tower comprises an open portico of Ionic columns, and above it is a series of orders surmounted by a pediment, and enclosing a projecting bay window. The floors are of fireproof construction, covered with pitch-pine flooring, and the dadoes are of oak, pitch-pine, and glazed brick. The contract, which amounts to 50,000*l.*, is being carried out by Mr. T. Lumsden, builder.

DRILL HALL, WALLSEND.—The foundation stone of the new drill hall of the 2nd V.B. Northumberland Fusiliers, which occupies a site in Lawson-street, Wallsend, was laid recently. The building will cover an area of 60 ft. by 40 ft. Mr. W. T. Weir, of Howdon, is the contractor, and the plans were prepared by Mr. M. H. Graham, architect, of Newcastle.

BUSINESS PREMISES, DUBLIN.—The new premises, 70 and 71, South George-street, Dublin, which have recently been rebuilt and enlarged have now been completed. The new building, which extends to the rear a distance of 160 ft., is four stories in height, and the frontage has been carried out in red brick with Tullamore moulded limestone dressings. The contractors were the Dublin Timber Company, the architect being Mr. G. T. Moore, of Dublin.

BUSINESS PREMISES, MERTHYR.—New business premises have been erected in Merthyr from the designs of Mr. Bruce Vaughan, architect, of Cardiff. The new buildings have a frontage to High-street of 112 ft., and to the Glebeland of 95 ft., and a depth of 86 ft. The work has been carried out by the contractors, Messrs. S. Shepton and Sons, of Cardiff. The cost of the work has been 12,000*l.*

STAINED GLASS AND DECORATION.

RUSHFORD CHURCH, NEAR THETFORD.—This church has been decorated by Messrs. Percy Bacon and Brothers, of London, who have also executed a reredos, with painted panels, a chancel screen in wood, the sanctuary hangings, altar rails, brass lectern, a three light stained-glass east window, brass memorial tablet, also wooden panelling all round the body of the church. They are also erecting a Lych gate in the churchyard. The work has been done for Mrs. Musker, of Shadwell-court, Thetford.

APPOINTMENTS.

OULTON.—At the meeting of the Oulton Urban Council held on the 27th ult., Mr. W. F. Cockrill was elected surveyor. The other candidates for the post were Mr. Alfred Clarke and Mr. H. C. W. Blyth.

CROYDON.—Mr. Burnett Bullock, of Bodmin, has been appointed a Building Inspector under the Croydon Rural District Council.

SANITARY AND ENGINEERING NEWS.

REFUSE DESTRUCTOR, WOLVERHAMPTON.—A refuse destructor has been erected at Wolverhampton for the Corporation. The destructor has been erected by Messrs. Manlove, Alliott, and Company, of Nottingham. The lavatory and water supply have been carried out by Mr. F. Lindsay Jones, of Wolverhampton; and the railings and gates have been supplied and fixed by Messrs. Bayliss, Jones, and Bayliss, also of Wolverhampton. The drainage work has been executed by the Sewage Department of the Corporation. Mr. Green is the Borough Engineer.

DRAINAGE SCHEME, HORSELL, SURREY.—At the meeting of the Horsell Parish Council held on the 28th ult., the committee appointed to consider the drainage scheme of Messrs. Elliott and Brown, of Nottingham, proposed to be carried out by the Chertsey Rural District Council, reported that they were of opinion that it was a satisfactory one. The estimated cost of the engineering works was 19,676*l.*, which would have to be obtained from the Public Works Loan Commissioners at 3¾ per cent., repayable in thirty years.

RESERVOIR, CHELMSFORD.—A Local Government Board Inquiry was recently held in connexion with the Corporation's application for sanction to borrow 6,700*l.* for the construction of a covered service reservoir and a new 10-in. pumping main. The loan has now been sanctioned, and the work, which will be carried out under the supervision of the Borough Engineer, Mr. Cuthbert Brown, will be commenced forthwith.

MISCELLANEOUS.

THE NEW GAIETY THEATRE.—Mr. Arthur Franklin, as arbitrator, sat at the Surveyors' Institution, Westminster, on the 28th ult., in regard to the claim of the Gaiety Theatre Company (Limited) against the County Council. The company claim a sum of about 25,000*l.*, as the extra cost of the building which they erected under the Strand Improvement Scheme. It transpired that the County Council, in displacing the old Gaiety, offered the company a new site adjoining, and allocated a certain sum of money, about 50,000*l.*, to construct a new theatre. The expenditure upon the new building considerably exceeded that sum, and the theatre company contend that the outlay was necessary on account of the Council's requirements as to the architectural embellishments of the new building, which, occupying so important a site in the crescent designed under the improvement scheme should be of an imposing and ornate character. The contention of the County Council, who were represented by Mr. Harrison, K.C., was that the directors of the Gaiety Theatre Company exceeded the expense for their own purposes, desiring to enhance their property by a handsome architectural display. Mr. Hudson appeared for

the Theatre Company. By the consent of the arbitrator, Mr. Hudson agreed with Mr. Harrison that the best course would be to adjourn the proceedings until next month, so that Mr. Norman Shaw, R.A., who was appointed by the Council as assessor in the matter of the general architectural design for the new crescent, should be able to attend to give evidence.

REREDOS, ARBROATH.—On the 23rd ult. in St. Mary's Episcopal Church, Arbroath, there was dedicated a memorial of the late Mr. James Muir, banker, who was at one time Provost of Arbroath. The memorial takes the form of a carved oak reredos and brass tablet. It is executed in selected British oak, and has been carried out in the studios of Messrs. Harry Hems and Sons, of Exeter.

SCOTTISH BUILDING TRADES' FEDERATION.—The half yearly meeting of the Scottish Building Trades' Federation was held in the Imperial Hotel, Aberdeen, on the 22nd ult., Mr. John Morgan, President, in the chair. Reports were submitted which showed that the state of trade was generally dull and depressed in almost every district throughout the country. Considerable discussion took place as to the proposed general conditions of contract, which have been adopted by the local Society of Architects on the lines of those prepared by the Royal Institute of British Architects, and suggestions were made as to modifications which seemed desirable to the meeting.

NEWCASTLE SOCIETY OF ANTIQUARIES.—At the last monthly meeting of the Newcastle Society of Antiquaries, Mr. Robert Blair read a note by Mr. H. T. Peirson, Lord Boyne's agent, on the discovery this month of an old burial on Brandon Hill, in Durham county. The discovery, it was stated, was made on April 14 by a quarryman working in the quarry on the highest point of Brandon Hill. It was 4 ft. below the surface, which at the place was quite level. There were no traces of a barrow. The discovery consisted of a cist, which was composed of four slabs of stone set on edge, with a covering stone. The cist was 5 ft. in length, and varied from 1 ft. 10 in. to 2 ft. 10½ in. in width. The cist contained a portion of a skeleton of an adult male, which was lying on the left side, with the head to the east and the knees doubled up. The skull was of a low type, with a very receding forehead. There was also found in the cist an earthenware vessel made of sun-burnt clay, and ornamented with punctured lines and a kind of herring-bone pattern alternately from top to bottom. Traces of fire were visible in the cist, and also on top of the covering stone. Photographs relating to the discovery were handed round.—*Newcastle Daily Chronicle.*

THE INSTITUTE OF ARCHITECTS AND L.C.C. DRAINAGE BY-LAWS.—The following Metropolitan Borough Councils, in addition to those mentioned in the *Builder* of April 2, have dealt with the circular letter sent out by the Secretary, Royal Institute of British Architects, calling attention to the by-laws made by the London County Council with regard to the deposit of plans, sections, and particulars of drainage works, submitting that a block plan as required by by-law No. 1 (5), with the levels and gradients properly marked thereon, shows everything that is necessary, that beyond this plan a written description of the pipes and apparatus below and above ground would be reasonable, and suggesting that the by-laws should be modified accordingly:—Marylebone Borough Council agrees with the proposals of the Institute of Architects. Wandsworth Borough Council has decided to inform the Secretary of the Institute of Architects that the block plan required by the by-law is all that the Borough Council insists upon, and that the written description mentioned in his letter is not considered necessary. Islington Borough Council, having consulted their engineer, agree with his opinion that the by-laws as they at present stand are both reasonable and necessary. Lambeth Borough Council resolved to forward the letter of the Secretary of the Institute of Architects to the London County Council, without comment. Shoreditch Borough Council simply made an order that the communication be received. Camberwell Borough Council directed that a copy of the report of the engineer upon the matter be sent to the Institute; this report is to the effect that that Borough Engineer only insists upon sufficient drawings being deposited to enable the local Public Health Committee to consider whether the whole of the suggested drainage is in accordance with the several Acts of Parliament; he thinks that this should be insisted upon, more especially as owners are now taking every advantage in claiming drains as sewers, where in the past the late vestries have not insisted upon the depositation of these full detailed plans.

LAW SOCIETY'S BUILDING, CHANCERY-LANE.—We are asked to say that the electric lighting in this building was done by Mr. Ernest E. Hankinson, not "Hankinson and Co." We gave the name of the firm as furnished to us by the architect.

HOUSING, MANCHESTER.—The Sanitary Committee of the Manchester Corporation state that the City Architect has been instructed to prepare plans for the erection on the Bradford-road area of seventy-eight cottages and a house and shop, and the plans and estimates have been submitted. The estimated cost is 16,350*l.*, plus 10,000*l.*, the City Surveyor's estimate for road forming and sewering. The committee have also determined to recommend the Council to exercise their powers for shop erections, and have directed the City Architect to prepare plans of six shops to be constructed in Victoria-avenue, on the Blackley estate. The estimated cost of these shops is 4,000*l.* A scheme was in April sealed by the Corporation for the provision of sixty-four tenement dwellings upon land situate in Rochdale-road, Sudell-street, and Moore-street. The Council are recommended to approve of and adopt the several housing and shop schemes referred to in this report, and to make application of the Local Government Board for their approval of the schemes and for their sanction to the borrowing by the Corporation of the sum of 23,050*l.*

FATAL FALL FROM A COPING.—An inquiry was held at Westminster Coroner's Court on Saturday last relative to the death of Freeman Harold Rigby, 50, a labourer, of 15, Union-street, Pimlico. William Dixon, a foreman builder, said that on Wednesday week he was superintending work at a house in Grosvenor-place, the deceased man being employed there. The witness gave him instructions to erect a scaffold on the principal staircase, and he required a ladder, which, at the time, was in Pembroke-mews, at the back of the premises. For the purpose of getting ladders into the house a hole had been made in some wire netting on a flat 21 ft. from the ground, and Rigby, instead of walking 200 or 300 yards round to the mews, walked along a coping only 5 in. wide, and fell through the hole. He was taken to St. George's Hospital, where death took place. He really lost his life through an imprudent act. The jury returned a verdict of "Accidental death."

RESTORATION OF TOYNTON CHURCH.—On Saturday last the Lord Bishop of Lincoln reopened the parish church of Toynton All Saints', near Spilsby, after restoration. The work has brought to light some unsuspected, but interesting, features. It had long been surmised that the south wall would reveal traces of Gothic arches, and upon removal of the whitewashed plaster an arcade was revealed of three bays, erected aparently in the XIVth century. There are two limestone pillars, octagonal in shape, but, somewhat strangely, standing on square bases. They have moulded capitals, very clearly cut, and are 6 ft. 6 in. high, and 10 ft. 6 in. apart. Two of the three arches are quite perfect, but one had been cut away in order that a window might be inserted to give light to a gallery at the west end. Interesting as this discovery was, it pales in importance before that which the north wall was found to reveal, where were found four bays, of about 9 ft. each, with three pillars and two half-pillars of the Norman style, and dating back to A.D. 1150, or some 200 years earlier that the south arcade. At some period or other this arcade had been subjected to fire. Plain traces of ornamental lettering have also been discovered, this practice of text-writing originating about A.D. 1550. The whitewash period came after this, and it was upon the removal of several coats of whitewash that the latter discovery was made. The first known patron was a Saxon, and it is also known that the Countess Lucy, A.D. 1083, and her descendants were patrons of this living up to the year 1281.—*Sheffield Telegraph.*

BRITISH FIRE-PREVENTION COMMITTEE.—The testing operations for the current session were recommenced on Wednesday afternoon at the British Fire-Prevention Committee's testing station in Bayswater, when two fire-resisting partitions, one of slabs and one of porous bricks, were under investigation for a protracted period at temperatures ranging to 1,800 and 2,100 degrees Fahr. The tests were attended by representatives of the Council and Executive of the Committee, and a number of district surveyors, insurance surveyors, municipal and government officials. Official reports on the result of the test will be shortly issued. The slabs and porous bricks were proprietary articles, submitted by Mr. Jabez Thompson, of Northwich. The record for fire-resisting partitions was beaten by this firm's "Brickwood" partition, which withstood a severe fire test up to 2,100 degrees Fahr. for four hours, followed by five minutes' stream of water from a steam fire engine. The slab partition test was for one and a quarter hours up to 1,800 degrees Fahr., followed by two minutes stream of water. The Sub-Committees in charge of the tests comprised Messrs. Marsland, Dickson, and Grellier (district surveyors), Mr. Max Clarke, A.R.I.B.A., Mr. Langridge (insurance surveyor), and Chief Officer Dyer of the National Fire Brigades Union.

THE CITY OF LONDON DIRECTORY.—We have received a copy of the thirty-fourth annual edition of this excellent directory from the publishers, Messrs. W. H. and L. Collingridge, 148, Aldersgate-street, E.C. The work has been carefully revised under new editorial management, and has been corrected up to the time of going to press. All the information concerning the City Corporation, the committees, the City Officials, and the Livery companies, is given as usual. A new feature is the inclusion of the Tariff Commission, and the members selected to serve on its various committees. The alphabetical list contains the name, address, and trade or profession of every person or firm; and, as far as can be ascertained, of each individual member of a firm in the City of London. The Trades Guide is classified under the various trades or professions. The Biographical Section comprises portraits and biographies of the Aldermen and principal officers of the Corporation, and of many of the Masters of the Livery Companies. The Public Companies Section includes the important banking, insurance, financial, railway, and industrial companies, with names of directors, particulars of capital, and the latest procurable information as to dividends, etc. There have been several alterations in the streets of the City during the last twelve months, all of which have been recorded in the large coloured map, which forms one of the features of the work. The boundaries of the Wards and Parishes are marked, the former being indicated in colour. The price of the work is 12s. 6d.

ASFORDBY PARISH CHURCH.—Mr. H. L. Goddard, architect, who was requested by the rector to report as to the state of Asfordby Parish Church, has sent in a report, which was presented to a recent vestry meeting. He states that the wall facing where built in the local ironstone is much decayed, more particularly on the faces most subject to the prevailing winds and rains; of these the tower is in the worst state. The Ketton stone parapets, copings, and pinnacles are generally in good order, although buttress weatherings and string courses in some places require restoration. The chancel having been most recently restored, the facing is generally in better order than the remainder of the church, although there are parts where the local stone is much decayed and should be replaced with new. Of the whole fabric the tower has suffered most severely, in consequence of its height and greater exposure. Again this has affected the local stone facing only, the parapets, panelled frieze pinnacles, and spire being in really good order, with the exception of some parts of the pannelled frieze and string course over. The tower appears to have been cemented all over at some period with a view to arresting the decay of the local stone facing. This cement has almost disappeared except on the upper stage, where it remains fairly complete on all the faces. Any facing exposed on the north and east sides is decayed, but not to such an extent as that of the west and south sides, which are in the worst state, surpassed only by the condition of north-west and south-west buttresses, the condition of which is almost dangerous. The decay of the walling of the tower is not confined to the exterior; the interior of the bell stage has also suffered seriously, and the arches supporting the haunches of the spire are in part cracked and much weathered. For the stability and preservation of the church, he advises that as funds permit, the whole of the decayed local stone facing be replaced with Ketton stone from the Edith Western Quarries. The work can be done in sections as funds permit. The work on the tower, Mr. Goddard says, should be commenced at once, as the spire is endangered by the present condition of the substructure. He estimates the cost of the whole work of repair at about 1,000*l.*

CAPITAL AND LABOUR.

THE TEES-SIDE BUILDERS' DISPUTE.—At a meeting of joiners at Stockton on the 29th ult., it was agreed to accept ¼d. per hour reduction, with an extra allowance of ¼d. per hour or 6d. per day when laying block pitch pine or hardwood floors; walking time to be mutually arranged, and no further reduction for twelve months. These terms to come into force on May 9.

Legal.

COLLS *v.* HOME AND COLONIAL STORES, LTD.

In the House of Lords, before the Lord Chancellor and Lords Macnaghten, Davey, Robertson, and Lindley, this case was heard on Monday. It was an appeal from a judgment of the Court of Appeal reversing an order of Mr. Justice Joyce.

Mr. Bray, K.C., Mr. O. Leigh Clare, and Mr. Nutter (instructed by Messrs. Hyde, Tandy, Mahon, and Sayer) appeared for the appellant; while Mr. Haldane, K.C., Mr. Hughes, K.C., and Mr. W. E. Vernon (instructed by Messrs. Slaughter and May) were for the respondents.

The action, which raised an important question in the law applicable to the obstruction of ancient light caused by the erection of loftier premises on the site of an old building, was brought by the respondents, Home and Colonial Stores, Ltd., against Mr. Colls, the well-known builder and contractor, to restrain him from erecting a building in Worship-street, Finsbury, in such a way as to obstruct their ancient light. The building in question was opposite the premises of the respondent company, and was erected on the site of old buildings which had been pulled down. It was proposed to erect the new building to the height of 42 ft., the old building it replaced being but 19 ft. 6 in. The company complained that the proposed erection would seriously darken their premises and obstruct the amount of light formerly enjoyed by them. To that the appellant replied that the amount of light which would yet be left would be sufficient for the use of the company's premises for the ordinary purposes of habitation or trade, and that if, in fact, their premises were injuriously affected by the new buildings, all they were entitled to claim were damages and not an injunction. The company, however, refused to allow the matter to go to a reference on the question of damages, and stood upon their alleged legal right to an injunction. The important question, therefore, that the appeal raised was whether a mere diminution of light gave the party affected a right to an injunction, or merely a right to damages. Mr. Justice Joyce held that, although the new building would deprive the company of a substantial amount of light, causing them real damage, yet that as enough light would be left for the ordinary purposes of occupancy of the premises as a place of business, and its selling and letting value would not be affected, the company were not entitled to an injunction, though they might have been to damages.

The company from that judgment appealed, and meanwhile Mr. Colls went on and completed the new premises.

The Court of Appeal reversed the judgment of Mr. Justice Joyce, and ordered the pulling down of the building erected to such a point that the ancient light enjoyed by the company was not in any degree diminished, but they suspended the order for a mandatory injunction to issue until such time as Mr. Colls' appeal to the House of Lords had been heard and decided. The appeal was argued last summer before the Lord Chancellor and three Law Lords, mainly on the abstract question whether, when, by the erection of new premises a person's light to a substantial degree was interfered with, that person might insist on his right to refuse compensation, and require the Court to protect his right to ancient light by injunction, and the decision in Warren *v.* Brown decided in 1900 was discussed. That case was tried by Mr. Justice Wright, who held that the right to ancient lights acquired by statutory prescription was, except in special cases, limited to a sufficient quantity of light for all ordinary purposes of inhabitancy or business. The Court of Appeal reversed that decision, and the parties took the case no farther.

At the conclusion of the arguments judgment was reserved until the Michaelmas sittings, when the appeal was ordered to be re-argued, and the House was strengthened by the addition of two more Lords. At the conclusion of the arguments before a full House of six Law Lords (of whom the late Lord Shand was one), judgment was again reserved until Monday the 2nd ultimo, when judgment was delivered, allowing the appeal.

The Lord Chancellor, in moving that the appeal be allowed, said:—

My Lords,—In this case, which was tried before Mr. Justice Joyce, the learned judge gave judgment for the defendants upon the ground that the plaintiff had failed to prove any actionable wrong, although he found that the erection of the buildings of which the plaintiff had complained had appreciably diminished the light which the plaintiff had previously enjoyed.

The Court of Appeal, as I understand their judgment, thought this was wrong, and ordered a mandatory injunction to pull the premises down, so as to restore all the light that had been previously enjoyed. If this principle should be sanctioned by your Lordships it would be for the first time that, in this House at all events, such a principle had been determined.

My Lords,—I do not deny that authorities may be found for it, some of which have been cited at the Bar, but I do not think that the exact question which is now in debate has ever been brought before this House until now.

The question may be very simply stated thus:—After an enjoyment of light for twenty years, or if the question arose before the Act for such a period as would justify the presumption of a lost grant, would the owner of the tenement in respect of which such enjoyment had been possessed be entitled to *all* the light without any diminution whatsoever at the end of such a period?

My Lords,—If that were the law it would be very far reaching in its consequences, and so the application of it to its strict logical conclusion would render it almost impossible for towns to grow, and would formidably restrict the rights of people to utilise their own land. Strictly applied, it would undoubtedly prevent many buildings which have hitherto been admitted to be too far removed from others to be actionable, but if the broad proposition which underlies the judgment of the Court of Appeal be true, it is not a question of forty-five degrees, but any appreciable diminution of light which has been enjoyed (that is to say, has existed uninterruptedly for twenty years) constitutes a right of action, and gives a right to the proprietor of a tenement that has had this enjoyment to prevent his neighbour building on his own land.

My Lords,—I do not think this is the law. The argument seems to me to rest upon a false analogy, as though the access to and enjoyment of light constituted a sort of proprietary right in the light itself. Light, like air, is the common property of all, or, to speak more accurately, it is the common right of all to enjoy it, but it is the exclusive property of none. If the same proposition against which I am protesting could be maintained in respect of air the progressive building of any town would be impossible. The access of air is undoubtedly interfered with by the buildings which are being built every day around London. The difference between the town and the country is very appreciable to the dweller in cities, when he goes to the open country or to the top of a mountain, or even a small hill in the country, but would the possessor for twenty years of a house on the edge of a town be at liberty to restrain his neighbour from building near him because he had enjoyed the free access of air without buildings near him for twenty years? No doubt, this is an extreme case, but it is one of the extreme cases which tries the principle. The truth is, that though there were objections to ask a jury whether the enjoyment *talis qualis* was such that they might presume a lost grant when nobody supposed that such a grant ever really was made, yet it gave the opportunity of considering what was the extent of the supposed grant, and if anything so extreme as I have just supposed were claimed, no jurymen in their right senses would have affirmed such a grant. The statute upon which reliance is placed in this case illustrates the danger of attempting to put a principle of law into the iron framework of a statute. The statute literally construed by the use of the words "*the* light" would mean all the light which for twenty years has existed in the surroundings of the tenement which has enjoyed it; yet, singularly enough, there has been a complete uniformity of decision upon the construction of the statute that it has made no difference in the right conferred, but is only concerned with the mode of proof; but, though I quite concur with this construction, which is supported by an overwhelming body of authority, yet I cannot but think the language of the statute has led to some of the decisions which your Lordships are now called upon to review.

Certainly in the older decisions which have been brought to your Lordships' notice in Mr. Bray's very able argument, the proposition, which as I have said underlies the judgment of the Court of Appeal, finds no place.

Lord Hardwicke long ago in 1752 (Fishmongers' Company *v.* East India Company, 1 Dickens, 165), dealing with this very question, the alleged obstruction to light, laid down what I believe to be law to-day. "It is not sufficient," he said, "to say that it will alter the plaintiff's light, for then no vacant piece of ground could be built on in the City, and here there will be 17 ft. distance, and the law says it must be so near as to be a nuisance." Lord Cranworth, in Clark *v.* Clark, L.R., 1 Ch. 16, adopted the same test, and his observation, though a subsequent decision of his seems to throw doubt upon it, has received the assent of some of the most learned judges who ever sat upon the English bench.

I think that the whole subject has been confused by certain decisions which were dependent on the facts proved, and were cautiously reported as laying down principles of law, when they were, in my view, only intended to be findings of fact in that particular case. At all events, I am prepared to hold that the test given by Lord Hardwicke is the true one, and I do not think a better example could be found than the present case to show to what extravagant results the other theory leads. The owner of a tenement on one side of a street 40 ft. wide seeks to restrain his opposite neighbour from erecting a room, which, when erected, will not then be of the same height as the house belonging to the complaining neighbour, and the only plausible ground on which the complaint rests is that on the ground-floor he has a room not built in the ordinary way of rooms in an ordinary dwelling-house, but built so that one long room goes through the whole width of the house to a back wall, which has, however, no window at the back of it, too dark for some purposes without the use of artificial light even before the building on the other side of the street was erected.

I think that no tribunal ought to find as a fact that the building is a nuisance, and although apart from the inappropriateness of the remedy by injunction, I am of opinion that the plaintiff has no cause of action against the defendant. The test of the right is, I think, whether the obstruction complained of is a nuisance, and as it appears to me, the value of the test makes the amount of right required depend upon the surroundings and circumstances of light coming from other sources, as well as the question of the proximity of the premises complained of. What may be called the uncertainty of the test may also be described as its elasticity. A dweller in towns cannot expect to have as pure air as free from smoke, smell, and noise as if he lived in the country and distant from other dwellings, and yet an excess of smoke, smell, and noise may give a cause of action, but in each of such cases it becomes a question of degree, and whether in each case it amounts to a nuisance which will give a right of action.

My Lords,—I have not thought it necessary to enter into a discussion of the authorities, because I think it has been most carefully and accurately done by Mr. Justice Wright in Warren *v.* Brown, 1900, 2 Q.B. 722.

Of course, my Lords, it must be taken that the foundation of this judgment rests upon the finding of fact by Mr. Justice Joyce, that the buildings of the defendant had not so materially interfered with the light previously enjoyed by the plaintiff as to amount to a nuisance.

It follows that in my judgment the case of Warren *v.* Brown, by Mr. Justice Wright, was correctly decided, and ought to have been affirmed by the Court of Appeal. It was, however, reversed in accordance with the same views which guided that court in the case now under view.

For the reasons I have given, I have to move your Lordships that the judgment of the Court of Appeal be reversed, and the judgment of Mr. Justice Joyce restored, and that the respondents do pay to the appellants the costs both here and below.

Lord Macnaghten, My Lords,—The right of an owner or occupier of a building with windows in it, privileged as ancient lights, in regard to the protection of the light coming to those windows is a purely legal right. It is an easement belonging to the class known as negative easements. It is nothing more or less than the right to prevent the owner or occupier of an adjoining tenement from building or placing on his own land anything which has the effect of illegally obstructing or obscuring the light of the dominant tenement. This right in early times was vindicated (see Baten's Case, 9 Rep. 546) by an action on the case for nuisance, in which damages might be recovered and judgment had for removal or abatement of the nuisance. In Alfred's Case (9 Rep. 576) Lord Coke says that an action lies for nuisance done to light as one of the three essential requisites of habitation. "An action lies," he says, "for hindrance of the light, for the ancient form of the action was significant, *sc.*—*quod messuagium horridâ tenebritate obscuravit.*" It was not every diminution of light that would support such an action. The form of the action itself shows

that. In later times when an action for the protection of ancient lights came to be regarded rather as an action for disturbance of an easement than an action grounded on nuisance—as an action to prevent the infringement of a right rather than an action to redress a wrong—the necessity of showing the gravity of the injury complained of was not so obviously apparent. Still the principle was the same, and it must always be the same. "It is not sufficient," as Lord Hardwicke observed in The Fishmongers Company *v.* The East India Company (1 Dickens, 163), "to say it will alter the plaintiff's lights . . . The law says it must be so near as to be a nuisance."

Probably the most satisfactory statement of the rule to be applied in all cases of ancient lights is to be found in Back *v.* Stacey (2 Car. and P., 465), and Parker *v.* Smith (5 Car. and P., 438). Back *v.* Stacey was an issue directed by the Lord Chancellor to try two questions: (1) whether the ancient lights of the plaintiff in his dwelling-house in Norwich had been "illegally" obstructed by a building of the defendant, and (2) if so, what damage the plaintiff had sustained in respect of the injury. So that if the jury had found that the obstruction complained of was an illegal obstruction the damages would have gone to the whole of the injury and not merely to the loss sustained up to the date of the writ. It was contended there that as it was evident that the quantity of light previously enjoyed had been diminished the plaintiff was at any rate entitled to a verdict on the first issue, any obstruction of ancient lights being illegal.

But according to the report, "Best, C.J., told the jury, who had viewed the premises, that they were to judge rather from their own ocular observation than from the testimony of any witnesses, however respectable, of the degree of diminution which the plaintiff's ancient lights had undergone. It was not sufficient, to constitute an illegal obstruction, that the plaintiff had, in fact, less light than before; nor that his warehouse, the part of his house principally affected, could not be used for all the purposes to which it might otherwise have been applied. In order to give a right of action, and sustain the issue, there must be a substantial privation of light, sufficient to render the occupation of the house uncomfortable, and to prevent the plaintiff from carrying on his accustomed business (that of a grocer) on the premises, as beneficially as he had formerly done. His lordship added, that it might be difficult to draw the line, but the jury must distinguish between a partial inconvenience and a real injury to the plaintiff in the enjoyment of the premises."

Back *v.* Stacey was determined in 1826. Parker *v.* Smith was heard during the sittings after Michaelmas Term, 1832. It is, I think, the earliest reported case dealing with the question of light after the passing of the Prescription Act, which came into operation on the first day of Michaelmas Term, 1832. It was tried before Tindal, C.J. The marginal note states accurately, I think, the effect of the decision in these words: "That diminution of light and air which the law recognises as the ground of an action against a party who builds near another's premises is such as really makes them to a sensible degree less fit for the purposes of business or occupation."

It does not seem to have been suggested either by the Counsel of the Judge that the Prescription Act had made the slightest alteration in the nature of the right to light or the principle on which the question of an alleged infringement of that right ought to be determined.

To these two cases I would only add the case of Wells *v.* Ody (7 Car. and P., 410) before Parke, B., in 1836. In his charge to the jury the learned Judge said that he entirely adopted the law as laid down by Tindal, C.J., in Parker *v.* Smith. And then, after reading a passage from Parker *v.* Smith, he concluded his address to the jury by saying:—"The question therefore which I shall leave to you is whether the effect of the defendant's building is to diminish the light and air so as sensibly to affect the occupation of the plaintiff's premises and make them less fit for occupation."

So much for the right at law.

Courts of Equity had no original jurisdiction in the matter. Their province was simply to grant an injunction in aid of the legal right where there was danger of irreparable mischief or where an injunction was required to prevent multiplicity of actions. Under Lord Cairns' Act, 21 & 22 Vict., c. 27, the court was empowered, in all cases in which it had jurisdiction to entertain an application for an injunction against the commission or continuance of any wrongful act, to award damages to the party injured, either in addition to or in substitution for such injunction. The Act, commonly known as Sir John Rolt's Act, 25 & 26 Vict., c. 42, provided that in all cases in which any relief or remedy within the jurisdiction of the Court of Chancery was sought, whether the title to such relief or remedy was or was not incident to or dependent upon a legal right, every question of law or fact cognisable in a Court of Common Law on the determination of which the title to such relief or remedy depended, should be determined by or before the same court. These Acts are superseded by the Judicature Act, and now the High Court has all the jurisdiction of the Court of Chancery and of the several courts of law. But still, so far as the right in question is a legal right the court in the exercise of its jurisdiction must be guided by the principles established at law. And those principles, in my opinion, are still to be found most clearly and most concisely exhibited in the cases before Best, C.J., and Tindal, C.J., to which I have already referred.

Although the question thus stated appears tolerably simple it cannot be disputed that the reported cases on questions of light in recent times are not altogether consistent. There seem to be two divergent views, neither of which, I think, is absolutely accurate. The extreme view on one side is that the right which is acquired by so-called statutory prescription is a right to a continuance of the whole quantity of light which has come to the windows during a period of twenty years, This view is conspicuous in Calcraft *v.* Thompson, 15 W.R. 387, before Chelmsford, L.C., and in Scott *v.* Pape, 31 Ch. Div. 571, where Cotton, L.J., speaks of a "cone of light," and Bowen, L.J., of "a specific quantity of light" as the measure of the plaintiff's right.

The extreme view on the other side is that the right is limited to a sufficient quantity of light for ordinary purposes.

I think this divergence of view comes from a difference of opinion, consciously or unconsciously entertained, as to the meaning and effect of the provisions of the Prescription Act, 2 and 3 Will. IV. c. 71, and if I am not mistaken, it may be traced to certain expressions, not perhaps sufficiently guarded, which are to be found in Judgments delivered in this House in the case of Tapling *v.* Jones (XI. H.L. 290). In that case Lord Westbury, Lord Cranworth, and Lord Chelmsford, all assume that a period of twenty years' enjoyment of the access and use of light to a building creates an absolute and indefeasible right immediately on the expiration of the period of twenty years. No doubt section 3 says so in terms, but section 4 must read in connexion with section 3; and if the two sections are read together it will be seen that the period is not a period in gross, but a period next before some suit or action wherein the claim or matter to which such period may relate shall have been or shall be brought into question. Unless and until the claim or matter is thus brought into question, no absolute or indefeasible right can arise under the Act. There is what has been described as an inchoate right. The owner of the dominant tenement after twenty years' uninterrupted enjoyment is in a position to avail himself of the Act if his claim is brought into question. But in the meantime, however long the enjoyment may have been, his right is just the same, and the origin of his right is just the same as if the Act had never been passed. No title is as yet acquired under the Act. This point seems to have been much discussed shortly after the Act was passed. It was finally settled in a series of cases at Common Law, beginning, I think, with Wright *v.* Williams, 1 M. and W. 77, and including Richards *v.* Fry, 7 Ad. and E., 698, and Cooper *v.* Hubbuck, XII. C.P., N.S., 456, in which there is an interesting controversy between Willes, J., and Williams, J., on the question whether the twenty years' uninterrupted enjoyment under the third section is the period of twenty years before any suit or action or twenty years before each suit or action in which the point may from time to time arise. The former construction, in which Erle, C.J., and Byles, J., concurred with Willes, J., eventually prevailed.

The question is of little or no practical importance. But the construction established by the series of decisions to which I have referred, in accordance with the express language of the statute, goes, I think, a long way to show that the view taken by James, L.J., Mellish, L.J., and Lord Selborne as to the effect of the Act is absolutely correct, and that the qualification suggested by Bowen, L.J., in Scott *v.* Pape, 31 Ch. D. 571, is not well founded. It certainly would be strange if the court had been compelled to hold that the Prescription Act confers upon a person whose right is questionable, at least to this extent that it has been actually brought into question, a higher and a larger right than that possessed by a person whose prescriptive claim to the enjoyment of light is so clear as to be beyond all question. I have, therefore, no doubt that the Prescription Act has not in the slightest degree altered the pre-existing law as to the nature and extent of the right of access of light or the principle on which it is to be determined in any particular case whether the right has been infringed.

Now, if this be so, it seems to me, in accordance with the opinion expressed by James, L.J., and Brett, L.J., in the Ecclesiastical Commissioners *v.* Kino, and by many other Judges, that the direction given by Best, C.J., in Back *v.* Stacey is the direction which a court exercising the functions of both Judge and jury ought to keep steadily in view.

My Lords, having come to this conclusion, I do not propose to trouble your Lordships with any comments upon the mass of cases by which in comparatively modern times the question has been elucidated or obscured. It is enough, I think, to refer to what was said in Kelk *v.* Pearson (L.R. VI. Ch. 809), The City of London Brewery Company *v.* Tennant (IX. Ch. 212), and the Ecclesiastical Commissioners *v.* Kino (XIV. Ch. Div. 213). Speaking for myself, I doubt very much whether it is a profitable task to retry actions which depend simply on questions of fact or to review and endeavour to reconcile or distinguish a number of cases that naturally enough contain some statements which, taken by themselves and apart for the context, may seem to be contradictory, but which must all proceed upon the same principle. It would only be another link in the embarrassing chain of authority, or if I may venture to say so, only another handful of dust to be cast into one scale or the other when the claims of opposing litigants come to be weighed in the balance. I think there is much good sense in the observations of Brett, L.J., in the Ecclesiastical Commissioners *v.* Kino:—"To my mind," said his Lordship, "the taking some expression of a Judge used in deciding a question of fact as to his own view of some one fact being material on a particular occasion, as laying down a rule of conduct for other Judges in considering a similar state of facts in another case, is a false mode of treating authority. It appears to me that the view of a learned Judge in a particular case as to the value of a particular piece of evidence is of no use to other Judges who have to determine a similar question of fact in other cases where there may be many different circumstances to be taken into consideration."

If I may trespass for a few minutes longer on your Lordships' attention, I would rather spend the time in making one or two practical suggestions. I do not put them forward as carrying any authority. But they may possibly be of use to those who have to try such questions as this, if and so far as they appear to be consistent with good sense.

It will be observed that in Back *v.* Stacey the learned Judge told the jury who had viewed the premises that they were to judge rather from their own ocular observation than from the testimony of any witnesses, however respectable, of the degree of diminution which the plaintiff's ancient light had undergone. Now, a Judge who exercises the functions of both Judge and jury cannot be expected to view the premises himself, even if he considers himself an expert in such matters. But I have often wondered why the Court does not more frequently avail itself of the power of calling in a competent adviser to report to the Court upon the question. There are plenty of experienced surveyors accustomed to deal with large properties in London who might be trusted to make a perfectly fair and impartial report, subject, of course, to examination in Court if required. I am not in the least surprised that the plaintiffs in the present case objected to a report from a disinterested surveyor, but, in my opinion, the Court ought to have obtained such a report for its own guidance.

Then, with regard to giving damages in addition to or substitution for an injunction—that, no doubt, is a delicate matter. It is a matter for the discretion of the Court, and the discretion is a judicial discretion. It has been said that an injunction ought to be granted when substantial damages would be given at law. I have some difficulty in following out this rule. I observe that in some cases juries have been directed to give 1s. damages as a notice to the defendant to remove the obstruction complained of. And then, if the obstruction was not removed, in a subsequent action the damages were largely increased. In others a substantial sum has been awarded, to be reduced to nominal damages on removal of the obstruction. But the recovery of damages, whatever the amount may be, indicates a violation of right, and in former times, unless there was something special in the case, would have entitled the plaintiff, as of course, to an injunction in Equity. I rather doubt whether the amount of the damages which may be supposed to be recoverable at law affords a satis-

factory test. In some cases, of course, an injunction is necessary—if, for instance, the injury cannot fairly be compensated by money; if the defendant has acted in a high-handed manner; if he has endeavoured to steal a march upon the plaintiff or to evade the jurisdiction of the Court. In all these cases an injunction is necessary, in order to do justice to the plaintiff and as a warning to others. But if there is really a question as to whether the obstruction is legal or not, and if the defendant has acted fairly and not in an unneighbourly spirit, I am disposed to think the Court ought to incline to damages rather than to an injunction. It is quite true that a man ought not to be compelled to part with his property against his will, or to have the value of his property diminished, without an Act of Parliament. On the other hand, the Court ought to be very careful not to allow an action for the protection of ancient lights to be used as a means of extorting money. Often a person who is engaged in a large building scheme has to pay money right and left in order to avoid litigation, which will put him to even greater expense by delaying his proceedings. As far as my own experience goes, there is quite as much oppression on the part of those who invoke the assistance of the Court to protect some ancient lights which they have never before considered of any great value as there is on the part of those who are improving the neighbourhood by the erection of buildings that must necessarily to some extent interfere with the light of adjoining premises.

The common form of injunction which has been in use since the case of Yates *v.* Jack is not, I think, altogether free from objection. I think it would be better that the order, when expressed in general terms, should restrain the defendant from erecting any building so as to cause a nuisance or illegal obstruction to the plaintiff's ancient windows, as the same existed previously to the taking down of the house which formerly stood on the site of the defendant's new buildings. If the action is brought to a hearing before the defendant's new buildings are completed, and there seems to be good ground for the plaintiff's apprehensions, an order, I think, might be conveniently made in that form, with costs up to the hearing, and liberty to the plaintiff within a fixed time after completion to apply for further relief by way of mandatory injunction or damages as he might be advised.

With the present case I may deal very briefly. It cannot be disputed that some diminution of light is caused by the defendant's buildings, but such as it is I think it is exactly what Best, C.J., described as partial inconvenience rather than serious injury. I am satisfied that if the case had been tried at law before the question was so much embarrassed by the multiplicity of decisions no jury would have given any damages.

Perhaps I ought to add a word about Warren *v.* Brown, which is referred to in both the Judgments below. I cannot say that that case is quite satisfactory to my mind either as dealt with in the Court of First Instance or in the Court of Appeal. In the Court of First Instance the learned Judge who tried the case found a special verdict which is not very easy to understand. The room in which the light has been materially diminished "in its present state is," he says, "better lighted than the ground floor front rooms in many of the principal streets." I do not see what bearing that fact had on the question at issue. Then, instead of keeping in view the direction which Judges over and over again have said ought to be kept in view, the learned Judge embarks on an inquiry to determine which of two extreme views is correct. I doubt whether either the one or the other can be accepted as a safe guide without qualification. The Court of Appeal, in their turn, instead of dealing with the facts of the case before them, combat a particular view which rightly or wrongly they attribute to Wright J. I do not think Warren *v.* Brown helps one much.

I think the Appeal ought to be allowed with costs here and below.

[We hope to print the remaining Judgments next week.]

PATENTS OF THE WEEK.

APPLICATIONS PUBLISHED.*

4,052 of 1904.—J. D. BENNET: *Enclosed Desks for School, and like uses.*

This invention has for its object to provide an enclosed desk of simple construction which may be conveniently shipped in parts and put together at its destination without the aid of skilled labour. For that purpose the desk is composed of end frames of cast-iron or other metal, having suitable grooves formed on their inner sides in such wise that a bottom board or boards may be slipped in horizontally, and front and back boards may be slipped down thereinto on suitably-grooved end boards, fitted into the frame while the usual counter and hinged lid are fitted on top to complete the desk, which is secured on to end standards (on which the frames rest) by screws or bolts.

4,479 of 1904.—J. H. SMITH and G. R. SACKETT: *Flushing Apparatus for Water-closets, and the like.*

A flushing apparatus, comprising a syphon having an air chamber in its crown, communicating with the upper end of its shorter leg, and sealed against communication with the longer leg, means for displacing the air cushion, to start the syphon, a tube communicating with said air chamber and extending therefrom downwardly to a point above the entrance to the syphon to break the syphon, the said tube being adjustable to vary its lower end relatively to the entrance to the syphon.

9,975 of 1903.—T. CAINK: *An Apparatus for Facilitating the Apportioning of the Cost of Private Street Improvements to the various Frontages.*

This apparatus consists of two sets of scales drawn on cardboard, one set placed horizontally, and the other obliquely, the zero of the scales meeting at the angle where the scales join one another. To the cardboard is fixed a straight-edge, placed below the horizontal scale. The remaining part consists of a set-square, the arm of which is pivoted stiffly so as to be adjustable to any angle. The arm has preferably a celluloid edge with a line scribed down the centre on the underside. The horizontal scales are scales of length, and the oblique scales, scales of money. The length scales are preferably divided into tenths, and the oblique scales into pounds, shillings, and pence. The instrument is used in the following manner:—In apportioning the cost of street works, the amounts are fixed in proportion to the extent of frontage of the various properties joining the street. Having ascertained the total cost and the total frontage (which preferably has been measured by a tape divided into tenths), the cost of some length within the range of the scale is ascertained.

11,496 of 1903.—H. JUBB: *Steam Excavators.*

An excavator for cutting trenches, and for other similar or suitable purposes, which consists in controlling and regulating the cut or bite of the bucket by means of suitable gearing and shafts, supported by the jib and pillar, said mechanism being connected with, and controlled by, the ordinary brake-shaft pulley and treadle.

4,409 of 1904.—J. J. FEELY: *Slaked Lime and Process of Preparing the same.*

A process of treating lime, which consists in slaking lime to a powdered or granulated condition in a chemical solution of acetic acid and water, drying said lime by the action of attrition, assisted by the chemicals in said chemical solution, and finally, in grinding said slaked and dried lime, chemically prepared, to a still finer powdered form.

4,606 of 1904.—R. LIEBOLD: *Process for Manufacturing Cement.*

The manufacture of cement, consisting in adding to each hundred kilogrammes of calcined, but unground, cement, about 10 litres of boiling water containing, approximately, 245 grammes stearine, 12 grammes of potash, and 10 grammes of colophony, the mass thus obtained being dried and subsequently ground.

6,816 of 1903.—G. T. MAWSON: *Suspension of Centres for the Construction of Arches.*

The object of this invention is an improvement in the suspension of centres upon which arches of concrete or masonry are turned in a framework of rolled metallic beams. The invention applies particularly to centres of sheet metal which are liable to be used between beams or joists whose spacing may vary, and therefore demands an adjustment. The plates of sheet metal forming the centres are given the necessary curvature, and are fitted with suspending hooks, which seize the lower flanges of the joists or beams and support the centre plate. These hooks, in order to accommodate the variation of space that may occur among joists of the same nominal spacing, are made adjustable so as to accommodate differences such as continually occur in the construction of floors and roofs of masonry laid in frames of metal.

9,959 of 1903.—W. CRAWFORD: *Fireproof Doors and Door Frames.*

According to this invention, the door is formed of a solid plate of metal which may be hung or supported on rollers, or otherwise, so as to be readily closed, or to be self-closing, and the door frame is made also of metal, which may be cast, or otherwise formed, with inwardly-projecting flanges to form a U-shaped groove along the top, bottom, and one end of the door frame, into which groove the door is adapted to fit closely. On the fourth side or end the door frame is formed with a groove or recess on its outer side, so placed that the outer edge of the door, which is bent over or returned, enters said recess in the door frame when the door is closed. A closed joint is thus formed around the four sides of the door to prevent the passage of flame, and, the door and frame being engaged all round the door edges, warping is not liable to occur, the arrangement being such as to allow of the expansion of the door while subjected to heat.

12,676 of 1903.—G. T. RICHARDSON: *Method of Actuating Door and Window Openers, Bolts, Locks, and the like.*

This invention relates to means for actuating door and window openers, bolts, and locks, and it consists essentially in the combination with a sliding bar or plate, having a series of teeth or pins upon it, of a revolving plate or disc provided with a spiral flange or thread, designed to engage on one side of the centre of the disc with the teeth, or the like, upon the bar or plate.

12,887 of 1903.—F. POHLMANN: *Concrete, or Similar Girders.*

A concrete or similar girder, consisting in the employment of a metal beam having a lower thickened flange to take up the tensile stresses and web, so connected to the concrete as to take up the shearing stresses.

12,994 of 1903.—C. H. SIMKINS, C. HADLEY, and W. HADLEY: *Latching Bolts of Latches and Locks.*

A latching bolt of a latch or lock, formed with an auxiliary tongue or bar, which extends backwards from near the head thereof through a fixed abutment situated a considerable distance back within the case, and a spiral spring surrounding such tongue or bar, which is compressed between such abutment and an abutment of the bolt at the forward end of such tongue or bar.

20,590 of 1903.—D. E. BARNES: *A Silent Friction Clutch Applicable to Hoists, and other purposes.*

According to this invention, the use of both ratchet wheels and pawls are altogether dispensed with, and two pulleys with V-shaped grooves on their circumference are substituted in place thereof, and in connexion with each such grooved pulley a curved or cam-shaped lever is mounted above the pulley on one side of the centre thereof, so that it rests by its own weight on the grooved periphery of the wheel, so as to act as a noiseless brake in one direction only, but to leave the pulley free to revolve in the other direction without exercising any pressure whatever.

22,711 of 1903.—H. C. PRUCE: *Clamping or Gripping Attachments for use in Connexion with Casement and Window Stays, Fanlight and other Regulator Rods, and other Sliding or Adjustable Articles.*

Clamping or gripping attachments for use in connexion with casement and window stays, fanlight and regulator rods, and other sliding and adjustable articles, consisting of two parts having coincident eyes or holes, wherethrough the rod or article to be clamped is passed, one of the said parts carrying a screw, cam-lever, or equivalent device, which, when operated, acts upon the other part in such a manner that the two parts are separated or moved in opposite directions and made to grip the bar or article at separated points and on the opposite sides.

23,622 of 1903.—F. A. MURRAY and C. A. MURRAY: *A Mitre Box for Holding Mouldings, and the like, while being Mitred.*

This invention consists of a mitre box made of wood or metal in any or all its parts, and adapted to hold mouldings, and the like, whilst being mitred. It has a base of any desired length and width, with sides parallel and ends parallel to each other respectively. At any given distance apart and parallel with these sides are four pieces of material, rebated so that any two placed together upon the base form an inverted T-shaped groove. These pieces are fixed firmly by screws, or any other ways, to the base and parallel with its sides. The T-shaped grooves allow of four T-shaped sliding fences, of equal sizes in any respect, to slide within them.

28,146 of 1903.—A. CLARK: *Collapsible Gates, Shutters, Window-guards, and the like.*

A collapsible gate, or the like, consisting of a lattice structure of pickets and lazy tongs provided with extensions and arranged so that the spaces enclosed by the lazy tongs and extensions are of practically the same size, except at the edges of the gate, and the apices

* All these applications are in the stage in which opposition to the grant of Patents upon them can be made.

or corners formed by the overlapping ends of the extensions of one set of lazy tongs interlace and lie within the corners of the overlapping ends of the extensions of another set or partial set of lazy tongs.

55 of 1904.—J. P. ALTREE and C. F. G. BOYES: *Lined, or Otherwise Decorated, Portions of Enamelled Metal Surfaces, and the Method of Producing the same.*

This consists in producing lined portions of convex decorated enamelled metal surfaces, by first removing the groundwork enamel therefrom by the aid of an encircling guide, or of a ruler with convex or hollow inner or under surface, and subsequently painting over the hollows thus produced with enamel or colour of the tint desired.

2,944 of 1904.—P. KUPELWIESER: *Windows with Sliding Sashes.*

A window with sliding lower sash, consisting in constructing such sash of two separate parts, the upper part having a greater height than the lower part, both of which lie in one and the same plane and close together, with a butt joint situated at a level not interfering with the free view of a person standing or sitting behind the window, the two parts being connected together by supporting devices by means of bands passing over guide pulleys so that while the upper part is pushed upward, the lower part can sink downward, so as to form an opening between the two.

5,078 of 1904.—J. CRUICKSHANK and C. S. BURNHAM: *Elevators.*

Safety appliances for elevators, consisting of the car, a movable dog carried thereby, the vertical rod secured in the elevator-shaft adjacent to the path of the car, the retarder thereon to be engaged at the proper time opposite the dog, the rotary cam, with intermediate connexions for controlling the position of said dog, and enabling it to pass said retarder when the car is travelling at a safe speed, and means for rotating said cam in harmony with the movement of said car.

5,452 of 1904.—O. HERZOG: *Sliding Windows:*

Means for raising and lowering windows, and the like, comprising a sliding sash, a lazy-tong arrangement pivotally secured to the sash and a fixed resistance respectively, and means for operating said lazy tongs, comprising a bell-crank lever, pivoted to a rigid crossbar, a draw-bar jointed to the shorter arm of said bell-crank lever, and short links jointed to said draw-bar, and the two lowermost members of the said lazy tongs respectively, and means for temporarily securing the longer-handled arm of said bell-crank lever in the desired position.

8,174 of 1903.—W. C. EDWARDS: *Panel Construction for Partitions, Wall Linings, Door, and other Wooden Structures.*

A panel construction, having in combination a stile, made sufficiently thick to receive panel material, and cut away on one face at intervals to receive a rail of approximately the same width and depth as the spaces so cut away, whereby the outer faces of both members are approximately on the same plane.

14,811 of 1903.—C. PAYNE: *Apparatus for Indicating the Quantity of Water in Vessels, such as Tenders and Cisterns.*

An apparatus for indicating the quantity of water in a vessel, consisting in the combination of a main tube, open at its lower end to the water in the vessel, and provided with a valve at the said end, a chamber at the upper end of the tube, in communication with the tube by means of orifices, surmounted by cones, a pressure gauge in communication with the chamber, and auxiliary means for supplying the main tube with air.

15,666 of 1903.—H. J. RABONE: *Joints of Measuring Rules.*

This relates to measuring rules, and consists in making on the inner faces of the outer or side plates of the knuckle joint projecting collars or flanges, and making in the middle part seats for the said collars or flanges, so that when the parts are secured together by the rivet-like joint pin, they have a bearing partly on the said joint pin and partly on one another.

5,120 of 1904.—J. N. DAGOS: *Iron Framing or Skeleton Work Employed in Concrete Construction.*

Iron framework or skeleton work for concrete construction, in which the bars are adapted to be set at any desired angles, and then secured by means of plates arranged at the junction points, and connected by screws, rivets, or the like.

5,299 of 1904.—G. F. STRAWSON: *Means for Glazing the Roofs of Glass-houses or other Structures.*

Means for glazing the roofs of glass-houses and other structures, comprising an outer projecting strip of metal straddling the supporting bar for the glass, and the edges of which strip bear against the edges of said glass, and a metal clip straddling the first strips at their point of juncture, and the ends of which press firmly against the upper surface of the glass, the clip being held in position by means of wedges or nails passing through holes formed in the vertical member of the supporting bar and the walls of the strip.

5,523 of 1904.—M. MANKE and P. KLAU: *Concrete and like Roofs and Ceilings.*

Concrete, stone, and like roofs and ceilings, provided with fixed tie-rods, having the characteristic feature that pieces are driven in between the tie-rods, which are bent about the flanges of the roof or ceiling girders, and the end sides of the flanges, these pieces serving both to tighten the tie-rods and keep them in the right direction, and also to hold the ends of the tie-rods at such a distance below the end surface of said flanges that a good holding surface for the coating of cement is thereby secured.

SOME RECENT SALES OF PROPERTY:

ESTATE EXCHANGE REPORT.

April 20.—By MANSELL & ROWE.

Norwood.—103, Gipsy-hill, u.t. 61 yrs., g.r. 13*l.* 10s., y.r. 100*l.* £900

By MORLEYS'.

Chiswick.—17, 19, 21, and 23, Gainsborough-rd., f., y.r. 168*l.* 2,500

By EGGINGTON & SON (at Bracknel).

Binfield, Berks.—Rounds-hill, "Ramslade House," also house, homestead, etc., adjoining area 14 a. 1 r. 38 p., f. 1,525
Freehold cottage and 14 a. 3 r. 22 p., f. 550
"Pollard Row Wood," 13 a. 2 r. 19 p., f. .. 925
Freehold house and premises, y.r. 20*l.* 9s. .. 335
Freehold house (s.), bakehouse and cottage, y.r. 24*l.* 425

April 21.—By H. J. BLISS & SONS.

St. George's East.—22, 23, and 24, Wellclose-sq., u.t. 17 yrs., g.r. 65*l.*, w.r. 245*l.* 14s. .. 455
Bethnal Green.—19, Ellesmere-rd., f., w.r. 36*l.* 8s. 530
Bow.—92, Hewlett-rd., f., w.r. 33*l.* 16s. 425

By GLASIER & SONS.

Brondesbury.—45, Streatley-rd., u.t. 85¼ yrs., g.r. 8*l.* 8s., y.r. 50*l.* 515

By PERFECT & SONS.

Caledonian-rd.—No. 547, u.t. 50 yrs., g.r. 10*l.*, y.r. 55*l.* 545
Holloway.—7 and 9, Queensland-rd., u.t. 29½ yrs., g.r. 12*l.*, y.r. 76*l.* 14s. 325

By NEWBON, EDWARDS, & SHEPHARD.

City-road.—6, 7, 8, and 9, Haverstock-st., u.t. 20 yrs., g.r. 20*l.*, y.r. 144*l.* 770
Barnsbury.—57 and 59, Muriel-st., u.t. 41 yrs., g.r. 8*l.*, q.r. 84*l.* 780
Highbury.—227, Blackstock-rd. ("Sandringham Coffee and Dining Rooms"), u.t. 66¼ yrs., g.r. 8*l.* 8s., y.r. 65*l.* 770
Holloway.—25, Yerbury-rd., u.t. 63 yrs., g.r. 7*l.*, y.r. 49*l.* 500
Stoke Newington.—4, Sandbrook-rd., u.t. 60 yrs., g.r. 5*l.*, y.r. 28*l.* 315
Kentish Town.—3, 5, and 7, Hampshire-st. (s.), u.t. 42½ yrs., g.r. 12*l.* 12s., y.r. 94*l.* 590

By J. A. & W. THARP.

Manor Park.—8, Rabbitts-rd., f., e.r. 33*l.* 16s. 320
East Ham.—28, Wordsworth-av., f., w.r. 26*l.* 290
Ilford.—52, 54, 56, and 60, Wilton-rd., f., w.r. 92*l.* 6s. 880
62, Wilton-rd. (s.), f., y.r. 30*l.* 420

By STIMSON & SONS.

Haggerston.—Cester-st., etc., f.g.r. 18*l.*, reversion in 73½ yrs. 420
Bethnal Green.—Great Cambridge-st., f.g.r. 6*l.*, reversion in 77 yrs. 160
Clapton.—Presburg-st., f.g.r. 15*l.*, reversion in 79 yrs. 330
Forest Gate.—Cranmer-rd., f.g.r. 12*l.*, reversion in 78 yrs. 320
Leytonstone.—Ferndale-rd., f.g.r. 8*l.*, reversion in 78 yrs. 210
Wanstead.—Hall-rd., f.g.r. 15*l.*, reversion in 80 yrs. 320
East Ham.—Telham-rd., f.g.r. 25*l.*, reversion in 79 yrs. 540
Edmonton.—Ann's-cottages, f.g.r. 12*l.*, reversion in 78 yrs. 240
Southwark.—Coxon's-pl., f.g.r. 21*l.*, reversion in 77½ yrs. 480
Kennington.—St. Oswald's-pl., f.g.r. 24*l.*, reversion in 78 yrs. 525
Forest Hill.—Zetland-villas, f.g.r. 12*l.*, reversion in 78 yrs. 300
Greenwich.—Bell-st., etc., f.g.r. 12*l.* 10s., reversion in 76 yrs. 250
Wandsworth.—Wharf-rd., f.g.r. 21*l.*, reversion in 77 yrs. 480
Shepherd's Bush.—Gayford-rd., f.g.r. 6*l.*, reversion in 74 yrs. 155
Bow.—Burgoyne-rd., etc., f.g.r. 26*l.*, u.t. 46 yrs., g.r. 5*l.* 305
West Ham.—Union-rd., f.g.r. 35*l.*, u.t. 71 yrs., g.r. 15*l.* 280
Stratford.—Martin-st., etc., f.g.r. 28*l.* 15s., u.t. 53½ yrs., g.r. 20*l.* 115
Clapham.—Larkhall-la., f.g.r. 20*l.* 10s., u.t. 33 yrs., g.r. 8*l.* 10s. 160
Fulham.—Moore Park-rd., f.g.r. 8*l.*, u.t. 52 yrs., g.r. nil 130
Kentish Town.—Rhyl-st., f.g.r. 10*l.* 6s. 8d., reversion in 36½ yrs. 550
Weedington-rd., f.g.r. 2*l.*, reversion in 36½ yrs. 100
Wimbledon.—18, Delamere-rd., u.t. 85 yrs., g.r. 6*l.* 12s. 6d., y.r. 32*l.* 230
Herne-hill.—55, 57, and 59, Deronda-rd., u.t. 55 yrs., g.r. 22*l.* 1s., y.r. 120*l.* 915

April 22.—By W. ASHMOLE.

Barking, Essex.—66 to 86 (even), Linton-rd., f., w.r. 185*l.* 18s. £1,530
34, King's-rd. (s.), f., w.r. 23*l.* 8s. 220
87 to 105 (odd), North-st., f., w.r. 166*l.* 8s. . 1,505
Plaistow.—2 to 14 (even), Buxton-ter., f., w.r. 120*l.* 18s. 1,020
Ilford, Essex.—1 to 4, Rutland-ter., f., w.r. 70*l.* 4s. 670
1 to 4, Sylvan-cottages, f., w.r. 72*l.* 16s. 660
Barking, Essex.—147 to 155 (odd), North-st. (s.), f., y.r. 96*l.* 14s. 810
11, Broadway (s.), f., y.r. 50*l.* 1,250

By BEALE & CAPPS.

Lambeth.—93, 95, 97, and 99, York-rd. (s.), u.t. 19½ yrs., g.r. 43*l.* 1s., y.r. 205*l.* 2,120

By BISLEY & SONS.

Bermondsey.—114 to 124 (even), St. James's-rd., u.t. 29 yrs., g.r. 21*l.*, w.r. 234*l.* 1,360
17 and 18, Martin-st., u.t. 35 yrs., g.r. 5*l.* 10s., w.r. 65*l.* 425

By G. GOULDSMITH, SON, & Co.

Belgravia.—15, Wilton-st., u.t. 17 yrs., g.r. 15*l.*, y.r. 130*l.* 1,380

By SELFE & Co.

Camberwell.—23, Benhill-rd., u.t. 68 yrs., g.r. 6*l.* 6s., y.r. 33*l.* 370
Old Kent-road.—28 to 40 (even), Smyrks-rd., u.t. 15½ yrs., g.r. 21*l.*, w.r. 223*l.* 12s. 815

By A. J. SHEFFIELD.

Poplar.—19 and 20, Grove-villas, f., w.r. 65*l.* . 700
Bromley-by-Bow.—284, Devon's-rd. (s.), f., w.r. 31*l.* 4s. 265

By EDWIN EVANS (at Battersea).

Wandsworth.—24, Bellingham-rd., u.t. 87 yrs., g.r. 6*l.* 10s., y.r. 36*l.* 380
Streatham.—32, Pretoria-rd., u.t. 97¼ yrs., g.r. 6*l.* 10s., y.r. 32*l.* 275
247, 249, and 251, Mitcham-la., u.t. 97 yrs., g.r. 19*l.* 10s., y.r. 90*l.* 885

April 22.—By WOODS & SNELLING (at Chislehurst).

Chislehurst, Kent.—Red Hill, "Southville" and "Berisal," f., y.r. 82*l.* 960
Orpington, Kent.—Lower-rd., two freehold cottages, w.r. 23*l.* 8s. 185

April 25.—By ELLIOTT, SON, & BOYTON.

Hampstead-rd.—23, Harrington-sq., u.t. 38 yrs., g.r. 11*l.*, p. 625
St. John's wood.—93, Belsize-rd., u.t. 50½ yrs., g.r. 8*l.*, y.r. 38*l.* 325
133, Abbey-rd., u.t. 50½ yrs., g.r. 8*l.* 10s., y.r. 45*l.* 375

By HIBBARD & SONS.

Wood Green.—104 to 110 (even), Winkfield-rd., f., y.r. 115*l.* 16s. 1,210

By WM. HOUGHTON.

Walthamstow.—65 to 71 (odd), Milton-rd., f., w.r. 98*l.* 16s. 875
48, 54 and 56, Milton-rd.; also a plot of land, f., w.r. 72*l.* 3s. 700
2, 4 and 6, Byron-rd., f., w.r. 70*l.* 4s. 630
33 and 35, Byron-rd., f., w.r. 33*l.* 16s. 260
Hoe-st., two freehold building sites 188
7, 8 and 9, Exeter-villas, u.t. 72 yrs., g.r. 9*l.* 10s., w.r. 93*l.* 12s. 600
Leyton.—Sidmouth-rd., f.g. rents 16*l.*, reversion in 83½ yrs. 350
Walthamstow.—97, 99, 101 and 103, Somers-rd., f., w.r. 102*l.* 14s. 1,055
54, Barclay-rd., u.t. 69 yrs., g.r. 2*l.* 10s., w.r. 23*l.* 8s. 140

By MAY & PHILPOT.

Brixton.—55, Acre-la., u.t. 18½ yrs., g.r. 16*l.*, y.r. 75*l.* 575
50, Brailsford-rd., u.t. 70 yrs., g.r. 8*l.* 10s., e.r. 46*l.* 460

By F. VARLEY & SON.

Stoke Newington.—103, Lordship-rd., u.t. 70 yrs., g.r. 12*l.*, e.r 80*l.* 770
Bowes Park.—160 and 162, Whittington-road, u.t. 76 yrs., g.r. 13*l.*, y.r. 56*l.* 480
Hackney.—183, Graham-rd., u.t. 51 yrs., g.r. 8*l.*, y.r. 40*l.* 450

By WRIFORD, DIXON, & WINDER.

Paddington.—96, Chippenham-rd., u.t. 59 yrs., g.r. 8*l.* 10s., w.r. 81*l.* 18s. 510
Southwark.—69, Borough High-st. (s.), y.r. 135*l.* 2,950
Tooting.—Stella-rd., etc., f.g.r. 96*l.*, reversion in 98 yrs. 2,300

By O. E. GRIFFITHS (at Newmarket).

Newmarket, Suffolk.—Bury-rd., "Red Lodge," (Racing Residence), f., p. 1,800

By COCKETT & HENDERSON (at Broadstairs).

Broadstairs, Kent.—Victoria-parade, "Dickens House," f., y.r., 63*l.* 1,350
Charlotte-st., "St. George's-pl." and "Mulberry Tree Cottages," (two), area, 4,655 ft., f., p. 1,650
St. Peter's, Isle of Thanet.—24, High-st., (8), f., y.r. 30*l.* 450

By BALCH & BALCH (at Camden Town).

Hampstead-rd.—48, Werrington-st., u.t. 40½ yrs., g.r. 6*l.* w.r. 94*l.* 18s. (including Mortgage) 610
Holloway.—11, Tavistock-ter., u.t. 34 yrs., g.r. 6*l.* 6s., y.r. 36*l.* 290
50, Benwell-rd., u.t. 59½ yrs., g.r. 7*l.*, w.r. 66*l.* 6s. 400

April 26.—BROAD, WILTSHIRE and PENNY.

Addiscombe. — Havelock-rd. "The Manse," f., p. 1,200
Kilburn.—7, 8, and 9, Cambridge Mews, u.t. 58 yrs., g.r. 12*l.*, w.r. 80*l.* 12s. 400

By DAVID BURNETT & Co.

Kentish Town.—27, Herbert-st., u.t. 63 yrs., g.r. 2*l.*, y.r. 38*l.* 450
Ilford.—7 and 8, Grove Cottages, f., w.r. 31*l.* 4s. 200
Romford, Essex.—249 to 257 (odd), Marks-rd., f., y.r. 91*l.* 540

By T. H. CURRIE & Co.'

Highgate.—2 to 18 (even), Winscombe-st., w.r. 332*l.* 16s.; also l.g.r. 4*l.* 10s., u.t. 60 yrs., g.r. 45*l.* 1,820

By BROWETT & TAYLOR.

Wandsworth.—54, 56, 58, 62, 64, and 66, Westhill (s.), u.t. 79½ yrs., g.r. 18*l.*, y.r. 460*l.*.. £5,475
Deptford.—Hales-st., f.g.r. 17*l.* 11s., reversion in 15½ yrs. 760
Notting Hill.—Queen's-rd., f.g.r. 8*l.*, reversion in 36½ yrs. 295
Queen's-pl., f.g.r. 5*l.*, reversion in 38½ yrs.. 190
Canning Town.—Clever-rd., f.g.r. 7*l.* 19s., reversion in 77 yrs. 174
Islington.—Barford-st., f.g.r. 5*l.*, reversion in 45 yrs. 220
Clapham.—Milford-st., f.g.r. 6*l.* 6s., reversion in 26 yrs. 270
Leytonstone. — Harrow - rd., etc., f.g.r. 35*l.* 2s. 6d., reversion in 90 yrs. 865
Peckham.—High-st., The Peckham Timber Yard, area 14,000 ft., u.t. 34 yrs., g.r. 1*l.*, y.r. 120*l.* 1,550

By "HARRODS'."

South Kensington.—7, Egerton-gdns., u.t. 72 yrs., g.r., etc., 48*l.*, y.r. 300*l.* 3,700
Lingfield, Surrey.—Dorman's Pk., "Esperanza," f., p. 460

By HOBSON, RICHARDS, & Co.

Brixton.—28, Josephine-av., u.t. 61½ yrs., g.r. 10*l.*, y.r. 48*l.* 390
Twickenham.—The Cres., f.g. rents 55*l.*, reversion in 77 yrs. 1,380
Leytonstone.—Leytonstone-rd., f.g.r. 30*l.* 10s., reversion in 78½ yrs. 770
Upton Park.—Plashet-la., f.g.r. 27*l.*, reversion in 79 yrs. 680

By KNIGHT & Co.

South Kensington.—97 and 97a, Drayton-gdns., area 5,565 ft., f., e.r. 200*l.* 2,990

By PYKE, PYKE & HOWLAND.

Camden Town.—148 and 150, High-st. (S), u.t. 64 yrs., g.r. 88*l.*, y.r. 400*l.* 4,300

By REYNOLDS & EASON.

Norwood.—2, The Parade (S), u.t. 87 yrs., g.r. 21*l.*, y.r. 120*l.* 1,590
Regent's Park. — Albany-st., an improved rental of 25*l.* 4s. for 20 yrs. (with reversion) 475

By A. H. TURNER & Co.

Notting Hill.—South-row and Great Western-ter., f.g. rents 144*l.*, reversions in 26, 27, 28 and 78 yrs. 4,625

By FREDERICK WARMAN.

Highbury.—123, Highbury New-pk., u.t. 45 yrs., g.r. 10*l.* 10s., p. 760
165, Highbury New-pk., u.t. 45½ yrs., g.r. 15*l.*, p. 790
37, Highbury New-pk., u.t. 46 yrs., g.r. 15*l.*, p. 850
Leyton.—75, Lyttleton-rd., u.t. 92½ yrs., g.r. 3*l.* 13s., w.r. 35*l.* 2s. 220

By DEBENHAM, TEWSON, & Co.

Limehouse.—132, Narrow-st. (wharf), area 5,840 ft., u.t. 48 yrs., y.r. 115*l.* 500
Kilburn.—High-rd., f.g.r. 130*l.* 1s. 10d., reversion in 71 yrs. 4,000
Iverson-rd., f.g.r. 24*l.* 10s., reversion in 71 yrs. 680
10 to 20 (even), Iverson-rd., f., y.r. 240*l.* .. 4,100
Hackney.—159 to 171, 175 to 179 (odd), Amhurst-rd., f., y.r. 491*l.* 6,680
Kennington.—38, Kennington Park-rd. (s.), area 1,090 ft., c., y.r. 42*l.* 520
27, 29, 31, 33, and 40, Opal-st., c., y.r. 146*l.*, 12s. 1,000
Clerkenwell. — Myddleton - sq., f.g. rents 93*l.* 3s. 8d., u.t. 8 yrs., g.r. 64*l.* 11s. 4d.. . 165
Acton.—14 and 16, Churchfield-rd. East, u.t. 63 yrs., g.r. 16*l.*, y.r. 90*l.* 1,100
South Kensington.—4 and 6, Drayton-gdns., u.t. 39½ yrs., g.r. 4*l.*, y.r. 153*l.* 1,210
14, 16, 20, and 22, Drayton-gdns., u.t. 39½ yrs., g.r. 8*l.*, y.r. 265*l.* 2,590
3, 5, and 9, Drayton-gdns., u.t. 39½ yrs., g.r. 6*l.*, y.r. 225*l.* 1,990
Drayton-gdns., f.g.rents 10*l.*, u.t. 39½ yrs., g.r. 2*l.* 140
Drayton-gdns., a plot of land, area 3,700 ft., u.t. 39 yrs., g.r. nil, y.r. 12*l.* 190

By E. FERGUSSON TAYLOR (at New Barnet).

New Barnet, Herts.—Leicester-rd., four freehold residences, y.r. 170*l.* 2,255
Leicester-rd.—A freehold cottage, w.r. 9*l.* 2s. 600
1 and 2, Victoria-villas, f., w.r. 40*l.* 6s. 350

April 27.—By DYER, SON, & HILTON.

Lee.—52, Burnt Ash-rd., u.t. 53½ yrs., g.r. 10*l.*, p. 750

By FLOOD & SON.

Hyde Park.—Porchester-ter., f.g.r. 20*l.*, u.t. 17½ yrs., g.r. nil 250

By HAROLD GRIFFFIN.

Battersea.—11, Somerset-st., u.t. 47 yrs., g.r. 2*l.* 10s., w.r. 28*l.* 12s. 160
13, 15, 17, and 19, Somerset-st., w.r. 67*l.* 12s.; also f.g.r. 2*l.* 10s., u.t. 47 yrs., g.r. 1*l.* 16s. 440
5 and 6, Hart-st., u.t. 46 yrs., g.r. 3*l.* 12s., w.r. 35*l.* 2s. 235
48 to 53, Frances-st., u.t. 47 yrs., g.r. 15*l.* 5s., w.r. 124*l.* 16s. 805

By HERRING, SON, & DAW.

Brixton.—79, Effra-rd., u.t. 75½ yrs., g.r. 10*l.* 10s., p. 400

By NOKES & NOKES.

Caledonian-road.—8 to 15, Caledonian-cres., f., y.r. 274*l.* 16s. 4,280

By C. SPARROW & SON.

King's Cross.—42 to 52 (even), York-rd (including the "Lincoln Arms" p.h.), 9 to 16, Railway-st., 1 to 11, Buckingham Mews, area 15,000 ft., f., y.r. 1,027*l.* 19s. (in one lot) 11,900
Finchley.—8, Granville-rd., f., y.r. 55*l.* 850

By DOUGLAS YOUNG & Co.

Aldersgate.—5, Fann-st. (Club Premises), a profit rental of 70*l.* for 63½ yrs. 700
Canning Town.—Tucker-st., f.g.r. 30*l.*, reversion in 64 yrs. 600
Wandsworth.—13, Lemuel-st., u.t. 58 yrs., g.r. 5*l.*, y.r. 3*l.* 230

By WYATT & SON (at Chichester).

Boxgrove, Sussex.—Six freehold cottages, w.r. 34*l.* 1s. £425
Old Fishbourne, Sussex.—Three copyhold cottages, y.r. 25*l.* 14s. 265

By DEBENHAM, TEWSON, & Co. (at Heathfield).

Heathfield, Sussex.—"Bonishersh," and 15, Church Gates, f., y.r. 47*l.* 900
1 to 8, Church Gates, f., y.r. 52*l.* 430
9, 10, and 11, Church Gates, long leasehold, y.r. 21*l.* 14s. 280
16 and 17, Church Gates, also "Wallview Cottage," f., y.r. 27*l.* 400
"Kitwish," f., y.r. 12*l.* 200
"Schoolhill Villa," f., y.r. 15*l.* 310
19, 20, and 21, Spicer's Cottages, f., y.r. 39*l.* 9s. 6d. 560

By MADDISON, MILES, & MADDISON (at Yarmouth).

Yarmouth, Norfolk.—Regent-passage, freehold builder's yard, timber stores, etc., area 4,015 ft., y.r. 26*l.* 400
Gorleston, Suffolk.—20, England's-la., f., y.r. 13*l.* 140

April 28.—By COOPER & GOULDING.

Wandsworth.—250 and 252, Earlsfield-rd., u.t. 83 yrs., g.r. 12*l.*, w.r. 70*l.* 4s. 395
Finsbury Park.—113 and 115, Gillespie-rd., u.t. 73 yrs., g.r. 10*l.*, y.r. 61*l.* 490

By CURTIS & HENSON.

Aldingbourne, Sussex.—"Westergate House Estate," 112a. 2r. 17p., f. 10,000
"Mount Pleasant" (residence) and 14a. 2r. 5p., f. 1,350

By JENKINS & SONS.

Homerton.—286 and 288, Glyn-rd., f., w.r. 54*l.* 12s. 550

By C. C. & T. MOORE.

Enfield.—Manor-rd., "The Manor House," f., p. 800
Caledonian-road.—7, 8, and 9, Balmoral-gr. u.t. 58 yrs., g.r. 18*l.*, y.r. 81*l.* 650
Dalston.—145, Sandringham-rd., u.t. 56½ yrs., g.r. 6*l.* 10s., w.r. 66*l.* 6s. 400
Poplar.—1, 3, and 5, Willis-st., u.t. 41 yrs., g.r. 3*l.* 10s., w.r. 84*l.* 10s. 535
159 and 161, Brunswick-rd., u.t. 35 yrs., g.r. 7*l.*, w.r. 70*l.* 4s. 415
193, Grundy-st., u.t. 38½ yrs., g.r. 3*l.*, w.r. 28*l.* 12s. 180

By J. C. PLATT.

Holborn.—13, Red Lion-passage (s.), f., y.r. 46*l.* 845
Shepherd's Bush.—19, Coverdale-rd., f., y.r. 50*l.* 770
Chiswick.—42 and 44, Strand-on-the-Green, c., y.r., 50*l.* 1,010

By WM. STEVENS.

Dalston.—108 to 114 (even), Brougham-rd., u.t. 40½ yrs., g.r. 40*l.*, y.r. 154*l.* 16s. 630

By STIMSON & SONS.

Peckham.—Trafalgar-sq., f.g. rents 48*l.*, reversion in 71 yrs. 1,190
Dulwich.—Heber-rd., f.g. rents 31*l.* 10s., reversion in 74 yrs. 770
Forest Hill.—Perry Vale, f.g.r. 8*l.* 15s., reversion in 72 yrs. 200
Siddons-rd., f.g. rents 25*l.* 5s., reversion in 72 and 80 yrs. 625
Plumstead, Kent.—Marmadon-rd., f.g.r. 20*l.*, reversion in 93 yrs. 440
Putney.—Fawe Park-rd., f.g.r. 21*l.*, reversion in 89 yrs. 475
Hammersmith.—St. Dunstan's-rd., f.g. rents 52*l.*, reversion in 84 yrs. 1,205
Chiswick.—Wolseley-gdns., f.g. rents 50*l.*, reversion in 80 yrs. 1,210
Kilburn.—Tennyson-rd., f.g.r. 16*l.* 10s., reversion in 83 yrs. 420
Highgate.—Bismarck-rd., f.g.r. 6*l.* 10s., reversion in 72 yrs. 165
Harringay.—Beresford-rd., f.g. rents 10*l.* 10s., reversion in 90 yrs. 260
Southwark.—7 to 13 (odd), King James-st., and 35 to 40, Little Surrey-st., f., y.r. 327*l.* 12s. 3,070
Battersea.—31, 33, 35, and 37, Cabul-rd., w.r. 98*l.* 16s.; also i.g.r. 7*l.* 10s., u.t. 93 yrs., g.r. 24*l.* 650
West Ham.—161, Ham Park-rd., u.t. 75 yrs., g.r. 6*l.* 10s., y.r. 34*l.* 300

April 29.—By ARTHUR BARTON.

Lee.—2, Newstead-rd., u.t. 66 yrs., g.r. 15*l.*, y.r. 75*l.* 800

By C. W. DAVIES & SON.

Clerkenwell.—47, Exmouth-st. (s.), u.t. 12 yrs., g.r. 8*l.*, e.r. 90*l.* 310
Stoke Newington.—9, Stoke Newington-common, u.t. 69½ yrs., g.r. 7*l.*, e.r. 48*l.* 435
28 and 30, Spenser-rd., u.t. 50 yrs., g.r. 8*l.* w.r. 78*l.* 530

By JONES, LANG, & Co.

Tottenham Court-road.—19 to 21a, Store-st., and 33 to 38, Alfred-pl., area 13,400 ft., building lease for 80 yrs., let at per annum 850

By WM. HOLLIS.

Finchley.—Hendon-la., 'Suva," u.t. 95 yrs., g.r. 10*l.* 10s., y.r. 55*l.* 550
Hendon.—Sunny-gdns., eleven freehold building plots 1,037

By WOOTTON & GREEN.

Camberwell.—42 and 46, Wyndham-rd., f., w.r. 67*l.* 12s. 750

Contractions used in these lists.—F.g.r. for freehold ground-rent; l.g.r. for leasehold ground-rent; i.g.r. for improved ground-rent; g.r. for ground-rent; r. for rent; f. for freehold; c. for copyhold; l. for leasehold; p. for possession; e.r. for estimated rental; w.r. for weekly rental; q.r. for quarterly rental; y.r. for yearly rental; u.t. for unexpired term; p.a. for per annum; yrs. for years; la. for lane; st. for street; rd. for road; sq. for square; pl. for place; ter. for terrace; cres. for crescent; av. for avenue; gdns. for gardens; yd. for yard; gr. for grove; b.h. for beer-house; p.h. for public-house; o. for offices; s. for shops; ct. for court.

MEETINGS.

FRIDAY, MAY 6.

Architectural Association.—Mr. A. E. Munby, M.A., F.C.S., on "The Value of Science in an Architectural Curriculum." 7.30 p.m.

Junior Institution of Engineers (Westminster Palace Hotel).—Mr. A. W. Young on "The Design of a Dry Dock." 8 p.m.

Incorporated Association of Municipal and County Engineers.—Visit to Catcleugh Reservoir (Newcastle and Gateshead Waterworks).

SATURDAY, MAY 7.

Sanitary Inspectors' Association.—An Extraordinary General Meeting, Carpenters' Hall, London Wall, E.C. The President will deliver his Annual Address, 6 p.m.

British Institute of Certified Carpenters.—Carpenters, Hall. 6 p.m.

South Western Polytechnic.—Conversazione. 7 to 10 p.m.

Edinburgh Architectural Association.—Visit to Dunfermline—the Carnegie Baths and Gymnasium and the Abbey.

Northern Architectural Association.—Visit to New Buildings in Dean-street, Newcastle, and the Laing Gallery.

Incorporated Association of Municipal and County Engineers.—Northern District Meeting; Newcastle-on-Tyne.

MONDAY, MAY 9.

Society of Arts (Cantor Lecture).—Professor R. Langton Douglas, M.A., on "The Majolica and Glazed Earthenware of Tuscany," I. 4.30 p.m.

Institute of Sanitary Engineers, Ltd.—Organising Committee, 3 p.m. Examination and Literary Committee, 5 p.m. By-Laws Committee, 6 p.m.

Bristol Society of Architects.—Mr. P. Fitzgerald, M.A., on "Robert Adam, Artist and Architect," with Limelight Illustrations. 8 p.m.

TUESDAY, MAY 10.

Royal Institution.—Mr. L. Fletcher, M.A., F.R.S., on "Meteorites," II. 3 p.m.

Society of Arts (Applied Art Section).—Mr. W. Burton, F.C.S., on "Crystalline Glazes and their Application to the Decoration of Pottery." 8 p.m.

WEDNESDAY, MAY 11.

Society of Arts.—Mr. Richard R. Holmes, on "Early Painting in Miniature." 8 p.m.

THURSDAY, MAY 12.

Auctioneers' Institute.—Annual General Meeting, 2.30 p.m.

Institution of Electrical Engineers.—8 p.m.

Society for the Encouragement of the Fine Arts.—Second Conversazione, at the Galleries of the Royal Society of British Artists, Suffolk-street, Pall Mall.

FRIDAY, MAY 13.

Architectural Association.—Members' Dinner, Criterion Restaurant, Piccadilly Circus. 7 p.m.

Royal Institution.—Mr. M. H. Spielmann, F.S.A., on "The Queen Victoria Memorial." 9 p.m.

SATURDAY, MAY 14.

Architectural Association.—First Summer Visit—to Moor Park, Rickmansworth.

Incorporated Association of Municipal and County Engineers.—Yorkshire District Meeting, York.

Institute of Sanitary Engineers, Ltd.—Visit to Power Station, London Tramways Co.; and Messrs. Thorneycroft's Works, Chiswick.

British Institute of Certified Carpenters.—Visit to St. Paul's. 2.45 p.m.

PRICES CURRENT OF MATERIALS.

*** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the lowest. Quality and Quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

BRICKS, &c.

	£	s.	d.			
Hard Stocks.	1	16	0	per 1000	alongside,	in river.
Rough Stocks and Grizzles	1	13	0	,,	,,	,,
Facing Stocks ...	2	12	0	,,	,,	,,
Shippers	2	10	0	,,	,,	,,
Flettons	1	10	0	,,	at railway depôt.	
Red Wire Cuts ...	1	13	0	,,	,,	,,
Best Fareham Red	3	12	0	,,	,,	,,
Best Red Pressed Ruabon Facing	5	0	0	,,	,,	,,
Best Blue Pressed Staffordshire ...	4	4	0	,,	,,	,,
Do. Bullnose	4	10	0	,,	,,	,,
Best Stourbridge Fire Bricks	4	8	0	,,	,,	,,
GLAZED BRICKS.						
Best White and Ivory Glazed Stretchers	13	0	0	,,	,,	,,
Headers	12	0	0	,,	,,	,,
Quoins, Bullnose, and Flats	17	0	0	,,	,,	,,
Double Stretchers	19	0	0	,,	,,	,,
Double Headers...	16	0	0	,,	,,	,,
One Side and two Ends	19	0	0	,,	,,	,,
Two Sides and one End	20	0	0	,,	,,	,,
Splays, Chamferred, Squints.	20	0	0	,,	,,	,,
Best Dipped Salt Glazed Stretchers, and Header	12	0	0	,,	,,	,,
Quoins, Bullnose, and Flats.....	14	0	0	,,	,,	,,
Double Stretchers	15	0	0	,,	,,	,,
Double Headers...	14	0	0	,,	,,	,,
One Side and two Ends	15	0	0	,,	,,	,,
Two Sides and one End	15	0	0	,,	,,	,,
Splays, Chamferred, Squints	14	0	0	,,	,,	
Second Quality, White and Dipped Salt Glazed	2	0	0	,,	less than best.	

BRICKS, &c.—(*Continued*).

	s.	d.		
Thames and Pit Sand	7	3	per yard,	delivered.
Thames Ballast	6	0	,,	,,
Best Portland Cement	30	0	per ton,	,,
Best Ground Blue Lias Lime	21	0	,,	,,

NOTE.—The cement or lime is exclusive of the ordinary charge for sacks.

Grey Stone Lime.....12s. 0d. per yard, delivered.
Stourbridge Fireclay in sacks 27s. 6d. per ton at rly. dpt.

STONE.

	s.	d.		
BATH STONE—delivered on road waggons, Paddington Depôt	1	6½	per ft. cube.	
Do. do. delivered on road waggons, Nine Elms Depôt	1	8¾	,,	,,
PORTLAND STONE (20 ft. average)—Brown Whitbed, delivered on road waggons, Paddington depôt, Nine Elms depôt, or Pimlico Wharf	2	1	,,	,,
White Basebed, delivered on road waggons, Paddington depôt, Nine Elms depôt, or Pimlico Wharf	2	2½	,,	,,

	s.	d.		
Ancester in blocks	1	11	per ft. cube,	deld. rly. depôt.
Beer ,,	1	6	,,	,,
Greenshill ,,	1	10	,,	,,
Darley Dale in blocks	2	4	,,	,,
Red Corsehill ,,	2	5	,,	,,
Closeburn Red Freestone	2	0	,,	,,
Red Mansfield ,,	2	4	,,	,,

YORK STONE—*Robin Hood Quality*

	s.	d.		
Scappled random blocks	2	10	per ft. cube.	,,
6 in. sawn two sides landings to sizes (under 40 ft. super.)	2	3	per foot super.	,,
6 in. rubbed two sides ditto, ditto	2	6	,,	,,
3 in. sawn two sides slabs (random sizes)	0	11½	,,	,,
2 in. to 2½ in. sawn one side slabs (random sizes)	0	7½	,,	,,
1½ in. to 2 in. ditto, ditto	0	6	,,	,,
HARD YORK—				
Scappled random blocks	3	0	per ft. cube,	,,
6 in. sawn two sides, landings to sizes (under 40 ft. super.)	2	8	per ft. super.	,,
6 in. rubbed two sides Ditto	3	0	,,	,,
3 in. sawn two sides (slabs random sizes)	1	2	,,	,,
2 in. self-faced random flags	0	5	,,	,,

Hopton Wood (Hard Bed) in blocks	2	3	per ft. cube.	
,, ,, ,, 6 in. sawn both sides landings	2	7	per ft. super. deld. rly. depôt	
,, ,, ,, 3 in. do.	1	2½	,,	,,

SLATES.

in.	in.	£	s.	d.		
20 × 10	best blue Bangor	13	2	6	per 1000 of 1200 at	r. d.
20 × 12	,, ,,	13	17	6	,,	,,
20 × 10	first quality ,,	13	0	0	,,	,,
20 × 12	,, ,, ,,	13	15	0	,,	,,
16 × 8	,, ,, ,,	7	5	0	,,	,,
20 × 10	best blue Portmadoc	12	12	6	,,	,,
16 × 8	best blue Portmadoc	6	12	6	,,	,,
20 × 10	best Eureka unfading green	15	17	6	,,	,,
20 × 12	,, ,,	18	7	6	,,	,,
18 × 10	,, ,,	13	5	0	,,	,,
16 × 8	,, ,,	10	5	0	,,	,,
20 × 10	permanent green	11	12	6	,,	,,
18 × 10	,, ,,	9	12	6	,,	,,
16 × 8	,, ,,	6	12	6	,,	,,

TILES.

	s.	d.		
Best plain red roofing tiles	42	0	per 1000 at	rly. depôt.
Hip and Valley tiles	3	7	per doz.	,, ,,
Best Broseley tiles	50	0	per 1000	,, ,,
Do. Ornamental tiles	52	6	,,	,, ,,
Hip and Valley tiles	4	0	per doz.	,, ,,
Best Ruabon red, brown, or brindled do. (Edwards)	57	6	per 1000	,, ,,
Do. Ornamental do	60	0	,,	,, ,,
Hip tiles	4	0	per doz.	,, ,,
Valley tiles	3	0	,,	,, ,,
Best Red or Mottled Staffordshire do. (Peakes)	51	9	per 1000	,, ,,
Do. Ornamental do	54	6	,,	,, ,,
Hip tiles	4	1	per doz.	,, ,,
Valley tiles	3	8	,,	,, ,,
Best "Rosemary" brand plain tiles	48	0	per 1000	,, ,,
Best Ornamental tiles	50	0	,,	,, ,,
Hip tiles	4	0	per doz.	,, ,,
Valley tiles	3	8	,,	,, ,,
Best "Hartshill" brand plain tiles, sand faced.	50	0	per 1000	,, ,,
Do. pressed	47	6	,,	,, ,,
Do. Ornamental do	50	0	,,	,, ,,
Hip tiles	4	0	per doz.	,, ,,
Valley tiles	3	6	,,	,, ,,

WOOD.

	At per standard. £	s.	d.	£	s.	d.
Deals: best 3 in. by 11 in. and 4 in. by 9 in. and 11 in	15	10	0	16	10	0
Deals: best 3 by 4	14	10	0	15	10	0
Battens: best 2½ in. by 7 in. and 8 in., and 3 in. by 7 in. and 8 in.	11	10	0	12	10	0
Battens: best 2½ by 6 and 3 by 6	0	10	0	less than 7 in. and 8 in.		
Deals: seconds	1	0	0	less thn best		
Battens: seconds	0	10	0	,, ,, ,,		
2 in. by 4 in. and 2 in. by 6 in.	9	0	0	9	10	0
2 in. by 4½ in. and 2 in. by 5 in.	8	10	0	9	10	0
Foreign Sawn Boards—						
1 in. and 1¼ in. by 7 in.	0	10	0	more than battens.		
¾ in.	1	0	0	,,		

WOOD.—(*continued*).

	At per load of 50 ft. £	s.	d.	£	s.	d.
Fir timber: best middling Danzig or Memel (average specification)	4	10	0	5	0	0
Seconds	4	5	0	4	10	0
Small timber (8 in. to 10 in.)	3	12	6	3	15	0
Small timber (6 in. to 8 in.)	3	0	0	3	10	0
Swedish balks	2	15	0	3	0	0
Pitch-pine timber (30 ft. average)	3	5	0	3	15	0

JOINERS' WOOD.

White Sea: first yellow deals,	At per standard.					
3 in. by 11 in	23	0	0	24	0	0
3 in. by 9 in.	21	0	0	22	10	0
Battens, 2½ in. and 3 in. by 7 in.	17	0	0	18	10	0
Second yellow deals, 3 in. by 11 in.	18	10	0	20	0	0
,, ,, 3 in. by 9 in.	17	10	0	19	0	0
Battens, 2½ in. and 3 in. by 7 in.	13	10	0	14	10	0
Third yellow deals, 3 in. by 11 in. and 9 in.	15	10	0	16	10	0
Battens, 2½ in. and 3 in. by 7 in.	11	10	0	12	10	0
Petersburg: first yellow deals, 3 in. by 11 in.	21	0	0	22	10	0
Do. 3 in. by 9 in.	18	0	0	19	10	0
Battens	13	10	0	15	0	0
Petersburg: second yellow deals, 3 in. by 11 in.	16	0	0	17	0	0
Do. 3 in. by 9 in.	14	10	0	16	0	0
Battens	11	0	0	12	10	0
Third yellow deals, 3 in. by 11 in.	13	10	0	14	0	0
Do. 3 in. by 9 in.	13	0	0	14	0	0
Battens	10	0	0	11	0	0
White Sea and Petersburg :—						
First white deals, 3 in. by 11 in.	14	10	0	15	10	0
,, ,, 3 in. by 9 in.	13	10	0	14	10	0
Battens	11	0	0	12	0	0
Second white deals, 3 in. by 11 in.	13	10	0	14	10	0
,, ,, 3 in. by 9 in.	12	10	0	13	10	0
,, ,, battens	9	10	0	10	10	0
Pitch-pine: deals	16	10	0	20	0	0
Under 2 in. thick extra	0	10	0	1	0	0
Yellow Pine—First, regular sizes	35	0	0	upwards.		
Oddments	24	0	0	26	0	0
Seconds, regular sizes	26	10	0	28	10	0
Yellow Pine oddments	22	0	0	24	0	0
Kauri Pine—Planks, per ft. cube	0	3	6	0	5	0
Danzig and Stettin Oak Logs—						
Large, per ft. cube	0	2	6	0	3	6
Small ,, ,,	0	2	3	0	2	6
Wainscot Oak Logs, per ft. cube.	0	5	0	0	5	6
Dry Wainscot Oak, per ft. sup. as inch	0	0	7	0	0	8
¾ in. do. do.	0	0	6½		—	
Dry Mahogany—Honduras, Tabasco, per ft. super. as inch	0	0	9	0	0	11
Selected, Figury, per ft. sup. as inch	0	1	6	0	2	0
Dry Walnut, American, per ft. sup. as inch	0	0	10	0	1	0
Teak, per load	17	0	0	21	0	0
American Whitewood Planks—per ft. cube	0	4	0		—	
Prepared Flooring—	Per square.					
1 in. by 7 in. yellow, planed and shot	0	13	6	0	17	6
1 in. by 7 in. yellow, planed and matched	0	14	0	0	18	0
1¼ in. by 7 in. yellow, planed and matched	0	16	0	1	0	0
1 in. by 7 in. white, planed and shot	0	12	0	0	14	6
1 in. by 7 in. white, planed and matched	0	12	6	0	15	0
1¼ in. by 7 in. white, planed and matched	0	15	0	0	16	6
¾ in. by 7 in. yellow, matched and beaded or V-jointed brds.	0	11	0	0	13	6
¾ in. by 7 in. do. do.	0	14	0	0	18	0
1 in. by 7 in. white do. do.	0	10	0	0	11	6
in. by 7 in. do. do.	0	11	6	0	13	6

6 in. at 6d. to 9d. per square less than 7 in.

JOISTS, GIRDERS, &c.

	In London, or delivered Railway Vans, per ton. £	s.	d.	£	s.	d.
Rolled Steel Joists, ordinary sections	6	5	0	7	5	0
Compound Girders, ordinary sections	8	2	6	9	5	0
Angles, Tees and Channels, ordinary sections	7	17	6	8	17	6
Flitch Plates	8	5	0	8	15	0
Cast Iron Columns and Stanchions including ordinary patterns	7	2	6	8	5	6

METALS.

IRON—	Per ton, in London. £	s.	d.	£	s.	d.
Common Bars	7	5	0	7	15	0
Staffordshire Crown Bars, good merchant quality	7	15	0	8	5	0
Staffordshire "Marked Bars"	10	0	0		—	
Mild Steel Bars	8	15	0	9	5	0
Hoop Iron, basis price	9	5	0	9	10	0
,, ,, Galvanized	17	10	0		—	
('And upwards, according to size and gauge.)						
Sheet Iron (Black)—						
Ordinary sizes to 20 g.	9	15	0		—	
,, ,, 24 g.	10	15	0		—	
,, ,, 26 g.	12	5	0		—	
Sheet Iron, Galvanised, flat, ordinary quality—						
Ordinary sizes—6 ft. by 2 ft. to 3 ft. to 20 g.	12	15	0		—	
Ordinary sizes to 22 g. and 24 g.	13	5	0		—	
,, ,, 26 g.	14	5	0		—	
Sheet Iron, Galvanised, flat, best quality—						
Ordinary sizes to 20 g.	16	0	0		—	
,, ,, 22 g. and 24 g.	16	10	0		—	
,, ,, 26 g.	18	0	0		—	
Galvanised Corrugated Sheets—						
Ordinary sizes 6 ft. to 8 ft. 20 g.	12	10	0		—	
,, ,, 22 g. and 24 g.	13	0	0		—	
,, ,, 26 g.	13	15	0		—	
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. by 20 g. and thicker	11	15	0		—	
Best Soft Steel Sheets, 22 g. & 24 g.	12	15	0		—	
,, ,, ,, 26 g.	14	0	0		—	
Cut nails, 3 in. to 6 in.	9	0	0	9	10	0

(Under 3 in., usual trade extras.)

LEAD, &c.

	Per ton, in £	s.	d.		London £	s.	d.
LEAD—Sheet, English, 3lb. and up	14	17	6	...	—		
Pipe in coils	15	7	6	...	—		
Soil pipe	17	17	6	...	—		
Compo pipe	17	17	6	...	—		
ZINC—Sheet—							
Vieille Montagne ton	27	5	0	...	—		
Silesian	27	0	0	...	—		
COPPER—							
Strong Sheet per lb.	0	0	10½	...	—		
Thin ,, ,,	0	0	11½	...	—		
Copper nails ,,	0	0	11	...	—		
BRASS—							
Strong Sheet ,,	0	0	10	...	—		
Thin ,, ,,	0	0	11	...	—		
TIN—English Ingots ,,	0	1	4	...	—		
SOLDER—Plumbers' ,,	0	0	6½	...	—		
Tinmen's ,,	0	0	8	...	—		
Blowpipe ,,	0	0	9	...	—		

ENGLISH SHEET GLASS IN CRATES.

15 oz. thirds	2d.	per ft.	delivered.
,, fourths	1½d.	,,	,,
21 oz. thirds	3d.	,,	,,
,, fourths	2¼d.	,,	,,
26 oz. thirds	3½d.	,,	,,
,, fourths	3d.	,,	,,
32 oz. thirds	4¼d.	,,	,,
,, fourths	4d.	,,	,,
Fluted Sheet, 15 oz.	2¼d.	,,	,,
,, 21 oz.	3¼d.	,,	,,
⅛ Hartley's Rolled Plate	1¾d.	,,	,,
⅜ ,, ,, ,,	1¾d.	,,	,,
¼ ,, ,, ,,	2¾d.	,,	,,

OILS, &c.

	£	s.	d.
Raw Linseed Oil in pipes or barrels. per gallon	0	1	5
,, ,, ,, in drums ,,	0	1	8
Boiled ,, ,, in pipes or barrels. ,,	0	1	8
,, ,, ,, in drums ,,	0	1	11
Turpentine, in barrels ,,	0	3	7
,, in drums ,,	0	3	9
Genuine Ground English White Lead per ton	19	0	0
Red Lead, Dry ,,	19	0	0
Best Linseed Oil Putty per cwt.	0	6	6
Stockholm Tar per barrel	1	12	0

VARNISHES, &c.

	Per gallon. £	s.	d.
Fine Pale Oak Varnish	0	8	0
Pale Copal Oak	0	10	6
Superfine Pale Elastic Oak	0	12	6
Fine Extra Hard Church Oak	0	10	0
Superfine Hard-drying Oak, for seats of Churches	0	14	0
Fine Elastic Carriage	0	12	6
Superfine Pale Elastic Carriage	0	16	0
Fine Pale Maple	0	16	0
Finest Pale Durable Copal	0	18	0
Extra Pale French Oil	1	1	0
Eggshell Flatting Varnish	0	18	0
White Copal Enamel	1	4	0
Extra Pale Paper	0	12	0
Best Japan Gold Size	0	10	6
Best Black Japan	0	16	0
Oak and Mahogany Stain	0	9	0
Brunswick Black	0	8	6
Berlin Black	0	16	0
Knotting	0	10	0
French and Brush Polish	0	10	0

TO CORRESPONDENTS.

C. & W.—H. D.—H. E.—C. F. M. & Son (Amounts should have been stated).

NOTE.—The responsibility of signed articles, letters, and papers read at meetings rests, of course, with the authors.

We cannot undertake to return rejected communications.

Letters or communications (beyond mere news items) which have been duplicated for other journals are NOT DESIRED.

All communications must be authenticated by the name and address of the sender, whether for publication or not. No notice can be taken of anonymous communications.

We are compelled to decline pointing out books and giving addresses.

Any commission to a contributor to write an article, or to execute or lend a drawing for publication, is given subject to the approval of the article or drawing, when received, by the Editor, who retains the right to reject it if unsatisfactory. The receipt by the author of a proof of an article in type does not necessarily imply its acceptance.

All communications regarding literary and artistic matters should be addressed to THE EDITOR; those relating to advertisements and other exclusively business matters should be addressed to THE PUBLISHER, and not to the Editor.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than* 10 *a.m. on Thursdays*. [N.B.—We cannot publish Tenders unless authenticated either by the architect or the building-owner; and we cannot publish announcements of Tenders accepted unless the amount of the Tender is given, nor any list in which the lowest Tender is under 100*l.*, unless in some exceptional cases and for special reasons.]

*** Denotes *accepted*. † Denotes *provisionally accepted*.**

AUDLEM.—For erecting a town hall and caretaker's house, for Audlem Public Hall Company. Mr. R. Matthews, architect, Parr's Bank-chambers, Nantwich. Quantities by architect:—

Heywood	£1,890 0 0	Harding	£1,630 0 0
Edge	1,877 0 0	Gresty & Son	1,585 0 0
Kendall	1,811 0 0	Manley & Son	1,545 0 0
Neild & Son	1,730 0 0	Stretton & Gibson, Audlem†	1,523 6 5
Cox & Vaughan	1,676 0 0		
Healey	1,630 0 0		

BALLYMONEY.—For erecting three bridges at Stranocum, Crookan, and Ballybradden, for the Rural District Council. Mr. John H. Brett, C.E., County Surveyor, Belfast :—

To cut a hill, fill hollows, and make a new bridge on the road from Clough to Ballycastle	J. McGarry, Tober, Pharis	£264
To build a new bridge over the River Bush at Stranocum	F. Haggarty, Park Mills, Armoy	3,449
To build a bridge across the River Bush at Crookan	F. Haggarty, Park Mills, Armoy	788

BECCLES.—For alterations and additions to premises in Smallgate-street, for the Working Men's Co-operative Association, Ltd. Mr. A. Pells, F.S.I., architect, London-road, Beccles :—

Hindes & Co.	£806	Boddy & Son	£696
F. J. Allen	735	Youngs & Son, Norwich*	675
Hipperson Bros.	734		
J. Gaze	725		

BOLTON-UPON-DEARNE.—For extension of main sewer, Furlong-road, for the Urban District Council. Mr. J. W. Wilson, Surveyor to Urban District Council. Quantities by Surveyor :—

T. Ward	£212 0 0	Wm. Baines, Beevers-street, Goldthorpe*	£174 0 0
S. Hamilton	210 0 0		
J. Searle	194 0 0		

BRADFIELD (Essex).—For erecting a new hotel and stabling, for Messrs. Steward & Patteson, Ltd. Mr. J. W. Start, F.S.I., architect, Colchester. Quantities by the architect :—

	Hotel.	Stables.	Total.
W. C. Theobald	£1,646	£698	£2,344
P. Banyard	1,585	635	2,220
Scales & Robins	1,485	620	2,105
J. McKay	1,498	568	2,066
Cubitt & Gotts	1,460	600	2,060
Saunders & Son	1,570	460	2,030
Wheeler	1,543	465	2,008
E. West	1,467	528	1,995
Gladwell	1,434	547	1,981
A. Plummer	1,425	555	1,980
W. E. Capon	1,464	506	1,970
W. Chambers	1,420	530	1,950
Grimwood & Son	1,370	523	1,893
Smith & Beaumont	1,300	523	1,824
E. Saunders, Dovercourt*	1,348	449	1,797

CARK-IN-CARTMEL.—For the erection of a new church, for the Trustees of Cark Wesleyan Church. Messrs. Sames & Henshaw, architects, Oxford-chambers, Abbey-road, Barrow :—

A. J. Blair, Cark-in-Cartmel* £1,100

CARLISLE.—For erecting Wesleyan Chapel and School, Monkhill, for the Trustees. Mr. H. Higginson, architect, 3, Lonsdale-street, Carlisle. Quantities by the architect :—

Builder: J. Laing & Son, Carlisle*	£435 12 0	Subject to certain Schedule deductions.	
Joiner: J. Beaty, Kirkbride*	325 12 6		
Plasterer: P. Gannon, Carlisle*	50 14 9		
Slater: J. T. Kellett, Carlisle*	44 10 0		
Painter: R. S. Kirk, Carlisle*	31 10 0		
Plumber: W. J. Wilson, Carlisle	29 7 0		

CARSHALTON.—For making up Stanley-road, for the Urban District Council. Mr. W. W. Gale, Surveyor. Quantities by Surveyor :—

R. W. Swaker	£2,964 7 4	London & County Blds., Ltd.	£2,526 16 2
Harvey Bros.	2,692 10 5	Edmund Iles	2,217 18 3
Lawrence & Thacker	2,658 10 8	J. B. Patter, Sutton (Surrey)*	2,130 3 2
W. Hall	2,638 19 5		
W. Martin	2,609 0 0		
Free & Sons	2,582 7 8		
T. Adams	2,559 16 0		

CHELMSFORD.—For the construction of a covered service reservoir for the Town Council. Cuthbert Brown, A.M.I.C.E., Borough Engineer :—

J. H. MacDonald	£7,000 0 11
T. W. Pedrette	6,754 13 2
G. G. Rayner	6,353 10 6
H. Ashley	6,274 12 8
A. Fasey & Son	6,103 4 9
J. & T. Binns	6,017 3 5
G. Wimpey & Co.	5,665 17 7
E. West	5,650 0 0
G. Bell	5,590 17 10
J. H. Vickers, Ltd.	5,544 1 11
J. Jackson	5,479 1 5
Jenkins & Son	5,447 18 3
F. Johnson	5,436 6 0
Greig & Mathew	5,375 7 5
Callender & Co.	5,346 5 0
Smith Bros.	5,260 0 0
Moran & Son	5,229 0 0
J. Double	5,046 0 0
H. Potter & Son, Chelmsford*	4,777 0 0
W. E. Westgate	4,753 0 0

[Borough Engineer's estimate, £4,800.]

CHELMSFORD.—For the supply and delivery of 225 tons of 10-in. cast-iron pipes and other castings, for the Town Council. Cuthbert Brown, A.M.I.C.E., Borough Engineer :—

J. & T. Binns	£1,547 17 6	G. Double	£1,256 11 3
J. Jackson	1,494 0 0	H. Potter & Son	1,256 1 3
Greig & Mathews	1,437 16 5	Cochrane & Co.	1,249 17 3
J. Robson	1,424 1 5	H. Ashley	1,232 1 3
G. Bell	1,371 10 0	Staveley Coal & Iron Co.	1,225 11 3
Callender & Co.	1,369 11 5	Moran & Son	1,221 5 0
W. E. Westgate	1,363 19 0	Cochrane & Co., Ltd.	1,207 10 9
J. Oakes	1,317 6 4	A. G. Clark	1,196 15 0
Abbott & Co., Ltd.	1,309 7 7	T. H. P. Denniss & Son	1,191 0 2
Roberts & Co.	1,286 3 9	Clay Cross Co.	1,169 13 8
Wimpey & Co.	1,285 2 6	Holwell Iron Co., Melton Mowbray*	1,131 18 7
Reid Bros.	1,277 8 6		
Sheepbridge Coal & Iron Co.	1,260 1 3		

[Borough Engineer's estimate, £1,177.]

COLWYN BAY.—For erecting a house and stables at Groes Field, for Mr. Richard Wood. Messrs. J. M. Porter & Hunter, architects and surveyors, The Estate Office, Colwyn Bay :—

Lloyd Jones	£1,150 0 0	Roberts Bros.	£1,060 0 0
Wood & Co.	1,147 8 0	Evan Owen*	959 12 6
S. Bond	1,106 0 0		

DARTMOUTH.—For additions to the Trafalgar Inn, for Mrs. Maria Walls. Mr. E. H. Back, architect and surveyor, Dartmouth. Quantities by architect :—

R. T. Pillar	£275 0 0
Bach & Watts	259 0 0
Wills & Anderson, Strete, nr. Dartmouth*	237 11 0

HALIFAX.—For the conversion of premises in Wade-street to a public-house. Messrs. Jackson & Fox, architects, 7, Rawson-street, Halifax :—

Mason: T. Bentley & Sons, Parkinson-lane, Halifax	£290 0
Joiner: S. Greenwood, Boothtoun, Halifax	151 10
Plumber: R. P. Stafford, King Cross-street, Halifax	91 15
Plasterers: Rushworth & Firth, New Bank, Halifax	40 10
Painter: W. Taylor, Parkinson-lane, Halifax	9 10

LEICESTER.—For Belgrave sewerage works (Contract No. 1), for the Corporation. Mr. E. Geo. Mawbey, M.Inst.C.E., Borough Engineer, Town Hall, Leicester :—

J. S. Dawson	£5,184 18 0	Langley & Co., 111, Moira-st., Leicester*	£3,403 14 8
T. Philbrick	3,937 19 0		
J. H. Smedley	3,886 10 6		
J. Holme	3,862 6 0		
Johnson & Langley	3,675 17 8		

LEIGH.—For building basement of proposed municipal buildings, Market-street, for the Leigh Corporation. Mr. J. C. Prestwich, architect, Bradshawgate-chambers, Leigh. Quantities by architect :—

J. W. Cowhurn, Leigh* £1,770

LEIGH (Lancashire).—For erecting an infirmary. Mr. J. C. Prestwich, architect, Bradshawgate-buildings, Leigh :—

Bywater & Sons	£21,500	Atherton & Co., Ltd.	£18,468
White & Sons	20,547	W. Townson & Sons, Ltd.	18,420
Hatch & Sons	19,985	J. H. Wilson	18,263
T. & W. Meadows	19,545	R. Neill & Sons, Ltd.	18,250
H. Fairclough	19,500	J. Tinline	18,000
H. & F. Lomax	19,500	W. Cunliffe	17,918
S. & J. Hodgkiss	19,441	J. C. & F. Woods	17,891
E. & D. Maginnis	19,231	J. Cocker, Walkden*	17,649
S. Warburton	19,169		
Gerrard & Sons, Ltd.	18,792		
J. W. Cowburn	18,780		
C. W. Davenport	18,774		

LEYTON.—For situ-concrete paving and terrazzo paving at Norlington-road school, for the Education Committee. Mr. W. Jacques, architect, 2, Fen-court, Fenchurch-street, E.C. :—

	Situ-Concrete.	Terrazzo.
Art Pavements & Decorations, London	£148 14 1	£280 2 2
Atlas Stone Co., Cambridge	96 0 5	264 17 6
Bradford & Co., Homerton	111 18 6	—
Engratic Stone Co., Fulham	101 11 6	303 9 3
Geary, Walker, & Co. Ltd., London	—	253 14 0
Hobman & Co., Bermondsey	117 18 6	334 17 9
Hodkin & Jones, Ltd., City	113 4 6	—
Malcolm, Macleod, & Co., City	96 18 5	—
Mosaic Manufacturing Co., St. Pancras	—	244 17 6
Mosaic Workers Co-operative, Islington	—	262 10 6
Patent Impervious Stone Co., Hammersmith	98 4 2	—
Patent Victoria Stone Co., Stratford	118 12 6	—
Turpins Flooring Co., Bayswater	128 1 2	268 12 6
Westminster Flooring Co., Chelsea	98 12 1	264 5 6

LICHFIELD.—For enlargement of the Post Office at Lichfield, for the Commissioners of H.M. Works and Public Buildings :—

		Credit old materials.
D. Roberts	£3,670	£10
G. H. Marshall	3,696	17
G. Webb	3,871	36
T. Walmesley	4,236	28
T. Mason	4,500	30

LLANDAFF.—For erecting a chemical and physical laboratory, studio, etc., to school buildings, for the Governors of Howell's Glamorgan County School for Girls. Mr. G. E. Halliday, architect, 14, High-street, Cardiff. Quantities by Mr. J. W. Rodger, Cardiff :—

Beams & Nephew	£3,250 0 0	G. Hallett	£2,910 0 0
Lathy & Co.	3,227 0 0	W. Cox	2,788 6 6
Knox & Wells	3,177 0 0	F. C. Williams	2,670 0 0
David Davies	3,140 0 0	Blache Bros.	2,525 0 0
C. W. Cadwallader	3,100 0 0	C. C. Dunn, Cardiff*	2,500 0 0
F. Bond	2,992 0 0		

LONDON.—For the supply of a new crane at Barking outfall, for the London County Council :—

J. Booth & Bros., Ltd., Rodley, (according to material used and height of backstays)	£421 to £461 0 0
T. Smith & Sons (heavy crane)	445 10 0
H. J. Coles, Derby (heavy crane)	438 0 0
T. Smith & Sons (light crane)	429 10 0
J. H. Wilson & Co., Ltd.	393 10 0
H. J. Coles, Derby (light crane)*	346 0 0
Grafton & Co.	342 0 0
Isles, Ltd.	340 0 0

LONDON.—For building new stabling at Scavenging Depot, Reliance Wharf, Hertford-road, for the Shoreditch Borough Council. Mr. J. Rush Dixon, Borough Surveyor, Town Hall, Old-street, E.C. :—

F. Willmott, Ilford* £1,294

LONDON.—For the erection of superstructure, Greenwich electricity generating station, for the L.C.C. :—

F. J. Gorham	£71,355 7 3
J. Dickson	69,944 16 0
Martin, Wells, & Co., Ltd.	65,447 0 0
Foster Brothers	61,975 0 0
J. Mowlem & Co., Ltd.	59,402 0 0
F. G. Minter	59,159 0 0
Mayoh & Haley	58,810 6 10
F. Miskin, Ltd.	58,795 15 8
F. and H. F. Higgs	58,608 0 0
R. Wilkins & Sons	58,465 0 0
A. Faulks	56,472 0 0
J. E. Johnson & Son	55,968 0 0
Holloway Brothers	55,900 0 0
B. E. Nightingale	54,972 0 0
H. L. Holloway	54,330 0 0
F. & T. Thorne	54,273 0 0
Kirk & Randall	54,263 0 0
H. Lovatt, Ltd., London and Wolverhampton*	52,970 0 0

LONDON SCHOOL BOARD TENDERS.

The exteriors of the following schools will be painted between 14th May and 11th June, 1904 :—

Halford-road.

E. Flood	£260 0 0	Lathey Bros.	£179 0 0
R. A. Jewell	200 0 0	F. Chidley & Co.	146 0 0
Hudson Bros.	190 0 0	E. B. Tucker*	137 15 0

Harwood-road.

J. & M. Patrick	£210	Hudson Bros	£143
R. A. Jewell	203	W. Hammond*	110
R. S. Ronald	200		

North End-road.

J. M. Patrick	£235	F. Chidley & Co.	£121
R. S. Ronald	150	W. Hammond*	106
Bristow & Eatwell	137		

Portobello-road.

G. H. Sealy	£185 10 0	Bristow & Eatwell	£127 10 0
H. C. Clifton	169 0 0	G. Neal	117 0 0
W. King & Son	148 0 0	F. T. Chinchen & Co.*	109 9 0
General Builders, Ltd.	139 0 0		

Saunders-road (old portion).

General Builders, Ltd.	£153 0 0	W. R. & A. Hide	£58 15 0
G. H. Sealy	97 10 0	Cowley & Drake	46 12 0
S. Polden	71 14 0	F. T. Chinchen & Co.*	37 0 0

"Victoria" (old School and J.M.).

Bristow & Eatwell	£165 0 0	Marchant & Hirst	£120 0 0
W. R. & A. Hide	124 15 0	S. Polden*	115 15 0

Saffron-hill.

T. Cruwys	£230 0 0	F. W. Harris	£139 0 0
H. Bouneau	190 0 0	M. Pearson	134 0 0
Marchant & Hirst	149 0 0	Stevens Bros.*	126 0 0
W. Chappell	140 0 0		

Station-road.

Patman & Fotheringham, Ltd.	£297	McCormick & Sons	£258
C. Dearing & Son	279	J. Grover & Son	163
T. Cruwys	270	A. Porter	146
		F. W. Harris*	139

Kender-street.

H. Leney & Son	£258 0	J. Appleby & Sons	£197 0
S. E. Musgrove	254 0	W. J. Howie	185 0
Enness Bros	214 0	J. & C. Bowyer	170 0
G. Kemp	210 0	C. G. Jones*	151 10

Mantle-road.

H. Leney & Son	£325 0	J. & C. Bowyer	£230 0
W. J. Howie	259 0	C. J. Jerrard	223 0
H. Groves	258 0	C. G. Jones*	214 17

Bonner-street.

W. Shurmur & Sons, Ltd.	£235 0 0	J. Haydon & Sons	£190 8 0
C. Willmott & Son	210 0 0	Barrett & Power	190 0 0
H. Bouneau	204 13 6	Marchant & Hirst*	189 0 0
H. R. Brown	203 0 0		
W. Silk & Son	193 10 0		

Curtain-road.

Parrott & Isom	£199 0	J. Haydon & Sons*	£148 15
J. Stewart	186 0		
Barrett & Power	174 0		

Seawell-street.

McCormick & Sons	£305 0 0	H. R. Brown	£239 0 0
G. Barker	297 0 0	C. Willmott & Son	229 0 0
Barrett & Power	276 0 0	Woollaston Bros.	210 0 0
A. Porter	239 0 0	H. Bouneau*	181 11 6

Hollydale-road.

J. Garrett & Son	£194	H. Groves	£158
W. J. Howie	182	Leonard & Mason*	148
W. Hooper	176	J. & C. Bowyer	120
Unsigned	167		

Sumner-road (main School and P.T. School).

E. P. Bulled & Co.	£381	W. Sayer & Son	£277
H. Groves	368	Holliday & Greenwood, Ltd.	252
W. V. Goad	341	Maxwell Bros., Ltd.	249
H. Line	333	W. Hooper*	235
G. Kemp	284		

Westmoreland-road.

Lathey Bros.	£149 0 0	Holliday & Greenwood, Ltd.	£103 0 0
W. Hooper	128 0 0	Maxwell Bros., Ltd.	97 0 0
W. Sayer & Son	112 0 0		
Leonard & Mason	106 15 0		

Wood's-road.

Unsigned*	£259 0	Maxwell Bros., Ltd.*	£158 10
W. V. Goad	199 0	Wm. Hooper	152 0
G. Kemp	190 0	Holliday & Greenwood, Ltd.	135 0
Leonard & Mason	189 0		
J. & C. Bowyer	185 0		

TENDERS—*Continued on page 509.*

COMPETITIONS, CONTRACTS AND PUBLIC APPOINTMENTS.

(For some Contracts, &c., still open, but not included in this List, see previous issues.)

COMPETITIONS.

Nature of Work.	By whom Required.	Premiums.	Designs to be Delivered
*New Church of Emmanuel, Liverpool	New Church Building Committee	Not stated	May 31
*Public Library	Peterborough Council	50*l.*, 25*l.*, and 15*l.*	June 30
*Shire Hall, Bury St. Edmunds	West Suffolk Standing Joint Comitt.	50*l.*, 30*l.*, 20*l.*	July 2

CONTRACTS.

Nature of Work or Materials.	By whom Advertised.	Forms of Tender, &c., supplied by	Tenders to be Delivered
Repairs, etc., Dallas United Free Church and Manse		The Church	May 7
386 ft. of 9-in. Walling at Cemetery	Town Council of New Windsor	Borough Surveyor, Windsor	do.
School Buildings, etc., Shotten, co. Durham	Horden Collieries, Ltd.	J. M. Bottomley, Son, & Wellburn, Arch., 28, Albert-rd., Middlesboro'	do.
Concrete Quay, etc.	Pittenween Town Council	D. & C. Stevenson, 34, George-street, Edinburgh	do.
Painting Borough Hall and Sanitary Depot	Stafford Corporation	W. Blackshaw, Borough Hall, Stafford	May 9
Paintg. & Decoratg. Lodges, Cemetery, Manchester-rd.	Warrington Cemetery Committee	Borough Surveyor, Town Hall, Warrington	do.
Repairs, Technical Institute, Godalming	Technical Education Authority	Welman & Street, Architects, Church-street, Godalming	do.
Cottage, Tarras		J. Beattie, Earlsmill, Forres	do.
Re-roofing Farm House, Tarras		do.	do.
Repairs to Steading, Tarras		do.	do.
Re-roofing Cottages, Hillhead		do.	do.
Cottage, Pittendreich Mill			do.
Walls and Gates, Argyle-street, Council School	Ipswich Education Committee	J. Wittet, Architect, Elgin	do.
Detached House at Baildon		E. T. Johns, Architect, Thoroughfare, Ipswich	do.
Painting, etc., Rooms, 7, Cyril-crescent, Cardiff	Roath Conservative Clubs	Walker & Collinson, Architects, Swan Arcade, Bradford	do.
4,000 Tons of Cement, Davyhulme Sewage Works	Manchester Rivers Committee	C. Lukins, Secretary	do.
Heating and Ventilation of Seedly Council School	Salford Education Committee	Secretary of Rivers Department, Town Hall, Manchester	do.
Street Works	Manchester Paving, etc., Committee	H. Lord, F.R.I.B.A., 42, Deansgate, Manchester	do.
5,000 Tons of Welsh Granite Setts	do.	Paving, etc., Dept. (Surveyor's Office), Town Hall, Manchester	do.
C.I. Verandah and Escape Staircases, New Infirmary	Stockport Guardians	Chief Clerk, Highways Department, Town Hall, Manchester	do.
Two Lancashire Boilers at New Infirmary	do.	W. H. Ward, Architect, Paradise-street, Birmingham	do.
Sewers, &c., at Hollin Hill, Clown	Clown R.D.C.	do.	do.
Re-seating, etc., Chapel of Ease at Redruth		E. H. Barber, A.M.Inst.,C.E., Clown, Chesterfield	do.
Hospital Ward, Nobles-green, Eastwood	Rochford R.D.C.	L. Winn, Architect, 11, Boscawen-street, Truro	do.
1,100 Yards c.i. Pipes, etc.	Llanelly U.D.C.	H. T. Sidwell, Surveyor, Rochford	do.
Horsekeeper's House, Doughty-road, Grimsby	Household Scavenging Sub-Comitt.	G. Watkeys, C.E., Town Hall, Llanelly	do.
Alterations, etc., to Premises	Alnwick and County Gazette Co.	H. Gilbert-Whyatt, Borough Engineer, Town Hall-sq., Grimsby	do.
Wood Paving Works	Kensington Borough Council	G. Reavell, Junior, A.R.I.B.A., Alnwick	do.
Repairs to Chimney Stacks at Workhouse	Cardiff Guardians	W. Weaver, Borough Engineer, Town Hall, High-st., Kensington	do.
Six Hill Cuttings and Building a Bridge, Woodburn	Larne R.D.C.	A. J. Harris, Clerk, Union Offices, Queen's-chambers, Cardiff	May 10
Concrete Flags	Rochdale General Purposes Com.	County Surveyor, County Court House, Belfast	do.
Road Macadam	Haverhill U.D.C.	S. S. Platt, M.Inst.C.E., Borough Surveyor, Rochdale	do.
Road Stone	Winsford U.D.C.	F. W. Knewstubb, Surveyor, Haverhill, Suffolk	do.
Painting, etc., Central Premises and Three Branches	Stafford Industrial Co-op. Society	J. Wilkinson, Surveyor, Winsford	do.
1,200 Tons of Guernsey Granite	Faversham R.D.C.	10, Salter-street, Stafford	do.
Wall to Sea Banks	West Hartlepool Corporation	J. G. Chittenden, District Surveyor, Ashford-road, Faversham	do.
Works at Auxiliary Asylum, Youghal	Cork District Lunatic Asylum	T. F. Dennis, Borough Engineer, West Hartlepool	do.
Cottages	Strabane R.D.C.	N. H. Hill & Son, Architects, 28, South-mall, Cork	do.
Dwelling-house, Grange Moor, Huddersfield		Offices of the R.D.C., Strabane, Ireland	do.
Alterations at Workhouse	Blackburn Guardians	J. Berry, Architect, 3, Market-place, Huddersfield	do.
Drainage Works, Nairn	Nairn Town Council	F. C. Ruddle, Architect, 4, King-street, Blackburn	do.
Workmen's Hall and Institute, Mardy		G. Gordon & Co., Civil Engineers, Inverness	May 11
Materials for Baths Department	Glasgow Corporation	E. Williams, Architect, Andrew's-buildings, Cardiff	do.
Arc Lamps, etc.	Southampton Corporation	W. Thomson, 187, George-street, Glasgow	do.
Rel'y'g Airing Yd. wi' Tar Asphalt, Crumpsall W'kh'se	Manchester Guardians	Borough Electrical Engineer, Southampton	do.
Shop for Electrical Repairs, Gateshead	N.E. Railway	A. J. Murgatroyd, Architect, 23, Strutt-street, Manchester	do.
Station Buildings, etc., at Dunston-on-Tyne	do.	W. Bell, Architect, Central Station, Newcastle-on-Tyne	do.
House, etc., Methlick, Scotland	Mr. W. Smith	do.	do.
Residence, Outwood, near Wakefield		J. Cobban, Architect, Haddo House	do.
Deepening Harbours, etc., St. Monance	St. Monance Town Council	J. W. Gardiner, Thorpe-terrace, Outwood, near Wakefield	do.
Repair, etc., of Asphalte Paving	Glasgow Corporation	D. and C. Stevenson, Engineers, 84, George-street, Edinburgh	do.
Iron Roofing of Retort House, etc.	Renfrew Town Council	Office of Public Works, City-chambers, 64, Cochrane-st., Glasgow	do.
Painting Museum Buildings, Warrington	Museum Committee	Engineer at the Gasworks	do.
R'ds, Dr'ns, etc., Bourneville Est'e, W'st'n-Sup'r-Mare		C. Madeley, Curator and Librarian, Warrington	May 12
Paving Works	Greenwich Borough Council	Wansbrough, Sons, & Garner, 67, High-street, Weston-Super-Mare	do.
Wharf Front, etc., Woolston, Southampton		Borough Engineer and Surveyor, Town Hall, Greenwich-road, S.E.	do.
Widening Bow Bridge	Edinburgh & District Wat'r Trustees	E. Cooper Poole, A.M.Inst.C.E., 5, Portland-street, Southampton	do.
Stores, Fittings, etc., Electric Tramway Department	Southampton Corporation	W. A. Tait, C.E., 72A, George-street, Edinburgh	do.
House, Kilner's-park, Ulverston	Mr. C. J. Chapman	Traffic Manager, Above Bar, Southampton	do.
Thirty Seats, Prince's-parade	Bridlington Property Committee	Settle & Brundit, Architects, Ulverston	do.
Steel Service Tank at Tannochside	Lanark Middle Ward District Com.	Borough Surveyor, Town Hall, Bridlington	do.
Pier and Road at Salen, on the Sound of Mull	Directrs. of Salen (Mull) Pier Co., Ltd.	Crouch & Hogg, C.E., 53, Bothwell-street, Glasgow	do.
Rebuilding Bible Christian Chapel, Landkey		J. Deas, C.E., 53, Bothwell-street, Glasgow	do.
120 Tons of Steel Rails, etc.	Manchester Cleansing Committee	J. C. Southcombe, Architect, Barnstaple	do.
*Covered Reservoir, Weston Hills, & 2 Miles of 8in. Main	First Garden City, Ltd.	R. Williamson, Town Hall, Manchester	do.
Softening Plant, etc., Otterbourne Waterworks	Southampton Corporation	G. R. Strachan, M.I.C.E., 7, Victoria-street, Westminster, S.W.	do.
Electricity Meters, etc.	Stoke-upon-Trent Corporation	Waterworks Engineer, 18 and 19, French-street, Southampton	May 13
Altering, etc., Old Bank Buildings into Offices, Pentre	Rhondda U.D.C.	P. J. S. Tiddeman, Field Places, Stoke-upon-Trent	do.
Broken Granite and Slag	Castle Donington R.D.C.	W. J. Jones, Engineer & Surveyor, Public Offices, Pentre, Rhondda	do.
Weigh Bridge, etc., at Power Station, Braywick-road	Maidenhead Corporation	F. E. Burton, Clerk, High-street, Castle Donington	do,
Christian Brothers' Schools, Fermoy		C. O. Milton, Boro' Electrical Engineer, Power Stn., Maidenhead.	do.
Public Library, Bank-street, Annan	Annan Town Council	S. F. Hynes, F.R.I.B.A., 21, South Mall, Cork	do.
Alterations, etc., of Market and Public Hall Premises	do.	Town Clerk's Office, Annan, Scotland	do.
Church, Barnacre, near Garstang, Lancs.			do.
Twelve Houses at Risca	Messrs. Rees & Case	Austin & Paley, Architects, Lancaster	do.
Painting Two Gasholders in Tytherington	Macclesfield Gas Committee	C. Telford Evans, Architect, 8, Queen-street, Cardiff	May 14
Materials	do.	Mr. Newbigging, Engineer at the Works	do.
Wrought-Iron Fencing & Gates, St. Philip's Churchyd.	Sheffield Improvement Committee	do.	do.
Painting, etc., at Infirmary, Rackham-st., Notting Hill	St. Marylebone Board of Guardians	C. F. Wike, City Surveyor, Town Hall, Sheffield	do.
Semi-Dd. Villas, Birchw'd-rd., St. Anne's-pk., Bristol		Steward of the Infirmary	do.
Extensions to Feeder and Distributing Mains	Birkenhead Corporation	H. C. H. Tarr, Architect and Surveyor, 10, St. Stephen-street, Bristol	do.
1,800 yds. of Cable	Canterbury Lighting Committee	W. Bates, Borough Electrical Engineer, Craven-street, Birkenhead	do.
Mild Steel Coal Bunkers, etc.	Aberdeen Electric Lighting Com.	Engineer, Electricity Works, Canterbury	do.
Street Works, Lyndale-road, Redhill	Reigate Town Council	J. A. Bell, City Electrical Engineer, Milburn-street, Aberdeen	do.
Villa, Aviemore		F. T. Clayton, Borough Surveyor, Municipal-buildings, Reigate	do.
Pulling down, etc., No. 84, High-street	Guildford Town Council	G. Gordon & Co., Engineers and Architects, Inverness	do.
Offices at Town Hall	Leeds Corporation	C. G. Mason, Borough Surveyor, Tuns Gate, Guildford	May 16
Painting, etc., Dead Meat-market	do.	City Engineer's Office, Leeds	do.
Sulphur Baths, Park-street, Ripon	Corporation of Ripon	do.	do.
Twelve Through Houses, Oldham-road, Rishworth		S. Stead, Architect, Victoria-chambers, James-street, Harrogate	do.
An Ejector to work with compressed air	Wimbledon Urban District Council	R. Horsfall & Son, Architects, 22A, Commercial-street, Halifax	do.
950 ft. of Cast Iron Pipes	do.	C. H. Cooper, M.Inst.C.E., Council Offices, Broadway, Wimbledon	do.
		do.	

CONTRACTS.—*Continued.*

Nature of Work or Materials.	By whom Advertised.	Forms of Tender, &c., supplied by	Tenders to be Delivered
Additions, etc., to Moriah Chapel, Rhymney	.....	H. M. Thomas, 13, Moriah-street, Rhymney	May 16
Rebuilding Black Bull Inn, Ferryhill, Co. Durham	.....	S. Wilkinson, Architect, 30, Mosley-street, Newcastle-on-Tyne	do.
Single-phase Turbo-alternator	Bristol Electrical Committee	H. Fareday Procter, City Electrical Engineer, Temple Bks., Bristol	do.
Union Offices, Ashby-road	Loughborough Guardians	W. T. Hampson, Architect, Ashby-road, Loughborough	do.
*Whitewashing & Cleaning Int. Asyl., Cleveland-st., W.	Central London Sick Asylum Dist	Asylum, Cleveland-street, Fitzroy-square, W.	do.
*Painting, etc., N. Disp., Lisson-gr., & S. Disp., East-st.	St. Marylebone Guardians	A. Saxon Snell, F.R.I.B.A., 22, Southampton-bdgs., Chancery-la.	do.
Manager's House at Sewage Works, Denton	Denton U.D.C.	Mr. Barlow, A.R.I.B. .. Hanover-cham., 8, King-st., Manchester	do.
Retaining Walls, approach to Mouton Bridge	Eccles Parliamentary Committee	T. S. Picton, Boroug Surveyor, Town Hall, Eccles	May 17
Wrought-iron Railings	do.	do.	do.
Open-air Bath	Carnarvon Corporation	R. O. Roberts, Town Clerk, Guildhall, Carnarvon	do.
Drymen Drainage Works	Stirling County Council	Kyle & Frew, Engineers, 216, West George-street, Glasgow	do.
Water-tube Boilers, L.C.C. Tramways	The L.C.C.	County Hall, Spring-gardens, S.W.	do.
*Broken Granite	Brentford U.D.C.	Council Surveyor, Boston-road, Brentford	do.
*Paving Works	Corporation of London	Engineer to the Corporation, Guildhall, E.C.	do.
*Cemetery Chapel	Bromley Burial Board	Burial Board Offices, East-street, Bromley	do.
Fire Stairs to Infirmary Ward at Workhouse	Farnham Guardians	Friend & Lloyd, Architects, Grosvenor-road, Aldershot	May 18
Coke Conveying Machinery, etc.	Salford Gas Committee	W. W. Woodward, Gas Offices, Bloom-street, Salford	do.
Reinstating Carriageway, etc., Allbut-st., Cradley H'th	Rowley Regis U.D.C.	Council Offices, Lawrence-lane, Old Hill, Staffordshire	do.
400kw. Steam-driven Generator	Stretford U.D.C. Electricity Com.	T. L. Miller, M.Inst.C.E., 19, Brazennose-street, Manchester	do.
*Iron Fire Escape Staircases, etc., Eastern H'sp't'l, N.E.	Metropolitan Asylums Board	Office of Board, Embankment, E.C.	do.
*Iron Fire Escape St're's's, etc., South-Western H'sp't'l	do.	do.	do.
*Making-up Woodlawn-road, Section III.	Borough of Fulham	Borough Surveyor, Town Hall, Fulham, S.W.	do.
*Making-up Macmurdo-road	do.	do.	do.
1,500 Tons of Lime	Birkenhead Corporation	T. O. Paterson, Gas Engineer	May 19
Three Cottages, Wareham	Mr. G. M. Marston	W. Watts Fookes, Architect, North-street, Wareham	do.
*New County Court Offices, Preston	Commissioners of H.M. Works, etc.	H.M. Office of Works, Storey's-gate, S.W.	do.
Mortuary at Cranleigh	Cranleigh Parish Council	F. W. Smith, Clerk to Council, Brookdene, Cranleigh	May 20
Outfall Sewer	Rugby U.D.C.	D. G. Macdonald, Surveyor to the Council, Rugby	May 21
Main Cables	Glasgow Corporation	W. A. Chamen, Engineer, 75, Waterloo-street, Glasgow	May 23
Electricity Meters	do.	do.	do.
Carbons	do.	do.	do.
Granite	Stevenage U.D.C.	W. O. Times, Clerk, U.D.C. Offices, Stevenage	do.
Granite Setts	Ince U.D.C.	A. T. Swain, Surveyor, Co. Offs., Ince Green-la., Ince, nr. Wigan.	do.
Forest-row Sewerage Works	East Grinstead R.D.C.	Bailey-Denton, Lawford & Symons, 9, Bridge-street, Westminster	May 24
Tramcars	Walthamstow U.D.C.	J. Enright, 68, Lincoln's Inn Fields, W.C.	May 29
Timber Wharf, etc.	Belfast Harbour Commissioners	G. F. L. Giles, Harbour Engineer, Belfast	May 30
*Enlargement of Isolation Hospital	Biggleswade Joint Hospital Board	H. Young, Architect, Bedford	May 31
*Head Post Office, Cheltenham	H.M. Office of Works	H.M. Office of Works, etc., Storey's-gate, S.W.	do.
Electricity Plant	Canterbury Lighting Committee	R. Hammond, M.Inst.C.E., 64, Victoria-street, Westminster	June 1
Repairs, etc., of Main Roads	Merioneth County Council	E. Vaughton, C.E., Arthog, Dolgelley	do.
Sewage Works, Brandon	Brandon and Byshottles U.D.C.	J. E. Parker, C.E., Post Office Chambers, Newcastle-on-Tyne	June 4
Renewal of Leadwork of Nave Roof of Whissendine Ch.	Vicar and Building Committee	Goddard & Co., Architects, 8, Market-street, Leicester	No date
Premises, 23, Widemarsh-street	Herefd. Co-operative & Industr'l Soc.	W. W. Robinson, Architect, 10, King-street., Hereford	do.
Alteration of Premises, St. Owen-street, Hereford	.....	W. E. H. Clarke, Arch. & Sur., Cathdl. Chbrs., King-st., Hereford	do.
160 yds., S'w'r M'k'g, etc., nr. Heaton-rd., M'nningh'm	.....	R. Armistead, Surveyor, 8, Charles-street, Bradford	do.
Soil Stripping and Excavating, Dudley Hill	.....	C. H. Hargreaves, Architect, Exchange, Bradford	do.
Out-buildings, etc., Hook Norton, School	.....	W. E. Mills, Architect, 12, Horse Fair, Banbury	do.
Decorative Works, Tolworth Joint Hospital	The Governors	Carter & Ashworth, Architects, 86, Eden-st., Kingston-on-Thames	do.
Reb'lding King's Arms Public H'se, Binstead, Alton	.....	R. A. Crowley, A.R.I.B.A., 22, Tavistock-street, Strand, London.	do.
Parish R'm & S'nd'y Sch'ls, St. M'tth'w's Ch., Hull.	Messrs. Crowley & Co.	J. M. Dossor, A.R.I.B.A., 2, Manor-street, Hull	do.
Sewering	.....	F. Shore, 13, Clare-street, Bristol	do.
Stores	Abertillery U.D.C.	J. McBean, Surveyor, 1, King-street, Abertillery	do.
Two Br'k B'lt Semi-Det. Villas, Av. Est. Knaresboro'	.....	W. Driffield, Architect, Boroughbridge-road, Knaresborough	do.
15,000 yards of Post and Rail Fencing	.....	Bert, Pateley Bridge	do.
Painting and Gilding 4 Dials of Normanton Ch. Clock	.....	Mr. Kingston, 16, The Grove, Normanton	do.
Extension of Kipping Sunday School, Thornton	.....	W. Pickles, Architect, 60, New-road, Thornton	do.
Villa at Thornton	.....	do.	do.
Enlarging Gwehelog School, near Usk	.....	Lansdowne & Griggs, Architects, Newport, Mon.	do.
Plumber's Work at Eight Houses	.....	J. Pullan, Noster House, Beeston	do.
Six Cottages, etc., Snettisham, Norfolk	W. J. Lancaster	L. F. Eagleton, Architect, King-street, King's Lynn	do.
Six Cottages, etc., Ingaldisthorpe, Norfolk	do.	do.	do.
Outside Painting and Repairs to Chapel	.....	W. H. Potter, Pastor, Grundisburgh Baptist Chapel	do.
140 Yards Iron Hurdle Fencing	Horbury Working Men's Club	G. W. Bowers, Secretary, Horbury	do.
Semi-Detached Villa, near Chepstow	Mr. James Rowe	Swash & Bain, Architects, Midland Bank-chambers, Newport, Mon.	do.

PUBLIC APPOINTMENT.

Nature of Appointment.	By whom Advertised.	Salary.	Applications to be in
*General Foreman	Uxbridge R.D.C.	3*l.* weekly	No date.

Those marked with an asterisk (*) are advertised in this Number. *Competitions*, iv. *Contracts*, iv. vi. viii. x. *Public Appointments*, xx.

TENDERS—*Continued from page 507.*

LONDON SCHOOL BOARD—*Continued.*

Johanna-street.

T. L. Green	£155 10	G. Brittain	£125 0
J. F. Ford	133 0	J. R. Sims	123 0
Rice & Son	127 0	W. Hornett*	112 0

Burghley-road (all departments).

Cowley & Drake	£336 15 0	Marchant & Hirst	£257 0 0
T. Cruwys	280 0 0	Stevens Bros.*	242 0 0
J. Stewart	263 0 0		
G. Kirby	263 0 0		

Pocock-street.

T. L. Green	£338 0 0	W. Hornett	£221 0 0
Edwards & Medway	290 0 0	W. J. Coleman & Co.	200 0 0
J. Garrett & Son	249 0 0	Rice & Son	199 0 0
J. Appleby & Sons	246 0 0	J. F. Ford*	188 10 0

Townsend-street.

H. J. Williams	£273 10	Maxwell Bros, Ltd.	£198 0
J. Garrett & Son	253 0	Rice & Son	196 0
W. Sayer & Son	242 0	E. Triggs*	185 0
E. Proctor & Son	200 0		

Rutland-street.

J. F. Holliday	£238 12 0	Vigor & Co.	£152 0 0
R. Woollaston & Co.	204 0 0	G. Barker	148 10 0
A. J. Sheffield	198 0 0	Woollaston Bros.	135 0 0
A. Heard & Co.	178 10 0	H. Bouneau*	129 2 9

Webb-street.

H. J. Williams	£238	E. Proctor & Son	£205
J. Herries & Co.	230	Rice & Son	203
W. Sayer & Son	213	E. Triggs*	162

Portman-place (Boys' and Girls').

R. Woollaston & Co.	£299 0	W. Silk & Son	£237 0
G. Barker	255 0	H. Bouneau	191 12
J. F. Holliday	252 15	Vigor & Co.*	171 0

St. Paul's-road.

J. F. Holliday	£200 8 0	A. E. Symes	£160 0 0
R. Woollaston & Co.	178 0 0	Woollaston Bros.	160 0 0
J. Dolman & Co.	176 0 0	A. Heard & Co.	147 0 0
G. Barker	170 0 0	Vigor & Co.*	140 0 0
H. Bouneau	162 11 6		

Napier-street.

H. R. Brown	£199 0	W. Silk & Son	£177 10
J. Grover & Son	199 0	McCormick & Sons	175 0
G. Barker	194 0	Barrett & Power*	160 0
J. Stewart	191 0	Woollaston Bros.	130 0

Redvers-street.

G. Barker	£290 0 0	H. Bouneau	£211 14 0
Barrett & Power	278 0 0	J. Haydon & Sons	207 15 0
Marchant & Hirst	265 0 0	Stevens Bros.	198 0 0
H. Runham Brown	229 0 0	Woollaston Bros.*	190 0 0

Holland-street.

T. L. Green	£224 0 0	J. F. Ford	£119 0 0
J. Appleby & Sons	147 0 0	G. Brittain	117 0 0
Edwards & Medway	147 0 0	Rice & Son	115 0 0
W. Hornett	126 10 0	W. J. Coleman & Co.*	85 0 0

Mawbey-road.

E. P. Bulled & Co.	£341	H. J. Williams	£249
J. Garrett & Son	322	W. J. Howie	242
J. Appleby & Sons	285	E. Triggs	218
W. Sayer & Son	259	E. Proctor & Son*	204

Weston-street.

Unsigned	£232 10	J. Greenwood, Ltd.	£170 0
Wm. Sayer & Son	227 0	Rice & Son*	163 0
J. Harries & Co.	218 0	E. Proctor & Son	158 0

St. Leonard's-road.

A. J. Sheffield	£300 0	G. Barker	£260 0
J. F. Holliday	297 18	A. E. Symes	262 0
J. Haydon & Sons	275 5	J. Dolman & Co.	257 0
R. Woollaston & Co.	270 0	Vigor & Co.	257 0
		Woollaston Bros.*	220 0

LUTON.—For paving and other works in Ivy-road, Belmont-road, and New Town-street, for the Town Council. Mr. A. J. L. Evans, Borough Engineer and Surveyor:—

T. Adams	£1,160 0 0
T. Free & Sons	1,134 10 0
Pat. Vic. Stone Co.	1,085 2 9
G. Powdrill, Hitchin-road, Luton*	993 17 4
Wallis & Inns (part only)	955 10 6

NORTHWICH.—For making road and laying sewer, for Northwich Rural and Northwich, Middlewich, and Winsford Urban Hospital Committee. Mr. J. Cawley, architect, Northwich:—

S. White & Co.	£213 10 6	E. W. Bostock	£145 0 0
F. Mitchell & Sons	201 19 0	J. Johnson	138 18 0
Birchall Bros.	165 6 0	S. Hutton	130 0 0
T. Rowlands	151 0 0	J. Dale, Northwich*	129 0 0

NORWICH.—For alterations and additions to Surrey-road Schools, for the Education Committee. Mr. C. J. Brown, architect and surveyor, Cathedral Offices, Lower-close, Norwich :—

W. E. Bird	£279	0 0	A. D. Boddy & Son	£215	0 0
J. Wilson	272	5 0	W. Woodward	200	0 0
S. Chapman & Son	229	0 0	W. J. Hannant	199	10 0
A. S. Lincoln	221	0 0	J. Burton & Son	192	10 0
Downing Bros.	218	10 0	A. C. Taylor, St. Augustines*	170	0 0
F. R. Hipperson	215	7 0			

NORWICH.—For new residence for Mr. P. N. Etheridge, Newmarket-road, Norwich :—
S. W. Utting, Sandringham-road, Norwich* .. £930

OTLEY.—For earthenware-pipe sewers, stormwater-overflow, and surface-water drains, Newall sewerage, for the Urban District Council. Mr. J. E. Sharpe, engineer and surveyor, Otley :—

J. Hannam	£3,373	7 1	W. Morley & Sons	£2,824	9 10
A. & C. Harris	3,317	8 7	E. Kellett	2,797	14 5
B. Oxley	3,304	15 5	H. E. Buckley, Bingley*	2,637	7 2
Ward & Tetley	3,237	5 1			
W. Brigg	2,879	3 7			
Barker Bros.	2,839	1 1			

[Estimate, £2,773 7s. 2d.]

PENYGROES (Wales).—For additional buildings for scientific and technical instruction at County School, for the Local Governing Body. Mr. R. Lloyd Jones, County Architect :—
O. T. Williams, 66, County-road, Penygroes .. £1,320
[Six tenders received.]

PRESTON (Lancs.).—For paving, etc., Skeffington-road, for the Corporation :—
Chadwick Bros., 160, Whalley-road, Blackburn* £372 0 3

RENWICK (Carlisle).—For rebuilding Wesleyan chapel, for the trustees. Mr. H. Higginson, architect, 3, Lonsdale-street, Carlisle. Quantities by the architect :—

Builder: H. Dryden, Renwick	£413 5 0	Subject to certain schedule deductions.
Joiner: J. Dixon, Renwick	320 0 0	
Plumber: Jackson & Son, Penrith	115 3 2	
Plasterer: Jackson & Son, Penrith		
Painter: Jackson & Son, Penrith		
Slater: J. T. Kellett, Carlisle	36 0 0	

SHEFFIELD.—For the erection of a free library at the corner of Walkley-road and South-road, for the Sheffield Corporation. Mr. H. L. Paterson, architect, 19, St. James's-street, Sheffield :—
D. O'Neill & Son, Bower-road, Sheffield* £3,259 10 0

SWANSEA.—For tarpaving the Hafod, Brynhyfryd, and St. Helen's Board Schools, for the United District School Board. Mr. G. E. T. Laurence, architect, Chandos-chambers, 22, Buckingham-street, Adelphi, S.W. :—

	Per yd. super. s. d.		Per yd. super. s. d.
S. Deeley	2 9	J. Wainwright & Co., Ltd.	1 11‡
C. Bradshaw & Son	2 9	North Wales Asphalte Co.	1 11
J. Smart	2 6‡	Roger & Lowe, Ltd.	1 10
E. B. Burgess	2 6‡	W. Sheppard	1 9‡
Asphaltes United	2 1½	La Brae Asphalte Co., Birmingham*	1 8½‡
F. G. Sheppard	2 1		
Asphaltic Limestone Co.	2 0‡		
North of England Asphalte Co.	1 11½‡		

[Brynhyfryd School, 3,955 yards super.; Hafod School, 4,241 yards super.; St. Helen's School, 2,034 yards super.]
‡ £3 13s. 6d. for preparation of contract for each school.

SWINDON.—For erecting stables and coach-house at the New Inn, Cromwell-street, for Messrs. T. & J. Arkell, Kingsdown Brewery. Messrs. William Drew & Sons, architects, Regent-circus, Swindon :—

C. Williams	£816	8 9	Tydeman Bros.	£742	10 0
A. J. Colborne	762	0 0	J. Lay	707	8 0
J. G. Norman	760	0 0	S. Ogbourne*	663	0 0

[All of Swindon.]

SWINDON.—For the erection of a lodge at the Queen Victoria Hospital. Messrs. William Drew & Sons, architects, Regent Circus, Swindon. Quantities by the architects :—

S. Chambers	£509	6 6	H. & C. Spackman	£445	0 0
W. Warren	491	18 6	A. J. Colborne	439	11 0
J. Williams	474	0 0	J. G. Norman*	417	0 0

[All of Swindon.]

SWINDON.—For the erection of a workshop at the Swindon Advertiser Offices, Victoria Road for Messrs. Morris Bros. Messrs. William Drew & Sons, Regent-circus, Swindon, architects :—

W. Panting	£385	10	J. G. Norman	£325	0
Tydeman Bros.	360	0	A. J. Colborne	309	12
W. Warren	358	0	R. J. Leighfield*	277	10

[All of Swindon].

SWINTON.—For making-up Adwick-road and Spencer-street, for the Urban District Council. Mr. R. Fowler, Surveyor, Council Offices, Swinton, near Rotherham. Quantities by Surveyor :—

Adwick-road.
H. Wake, Brinsworth, Rotherham £100

Spencer-street.
H. Wake, Brinsworth, Rotherham £181

TAIBACH.—For the erection of shop and premises Taibach, Port Talbot, for Mr. W. R. Hanford. Mr. Frank B. Smith, architect and surveyor, Port Talbot :—

J. Nicholas	£1,390	0 0	S. Rees	£1,182	13 3
Price Bros.	1,275	0 0	M. Cox, Port Talbot*	1,143	0 0
J. Lake	1,239	10 7			
J. Davies	1,210	0 0			

WATCHFIELD (Berks.).—For erecting a bowling alley at the Royal Oak Inn, for Messrs. R. B. Bowley & Co., Ltd. Messrs. William Drew & Sons, architects, Regent-circus, Swindon :—
John Lay, Swindon* £255 18
[No competition.]

WIMBLEDON.—For making up roads, for the Urban District Council. Mr. C. H. Cooper, Engineer and Surveyor, Council Offices, The Broadway, Wimbledon :—

Alwyne-road	E. Iles, jun., 54, North-road, Wimbledon*	£915
Belvedere-grove, Sect. 1		221
do. do. 2		595
Church-hill	J. Mowlem & Co., Grosvenor Wharf, Westm'ster, S.W.*	860

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